

**Volume**

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**R0390**

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# FIELD NOTES

OF THE SURVEY OF THE

Of the ..... Meridian,

In the State of .....

EXECUTED BY

In the capacity of U. S. Surveyor....., under instructions dated....., 191...,  
issued by the United States Surveyor General to govern surveys included in  
Group No. ...., which were approved by the Commissioner of the General Land  
Office, ....., 191..., pursuant to authority contained in the Act of  
Congress dated ....., 191...

Survey commenced ....., 191...

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# FIELD NOTES

OF THE SURVEY OF THE

Of the ..... Meridian,

In the State of .....

EXECUTED BY

In the capacity of U. S. Surveyor .., under instructions dated .., 191...

issued by the United States Surveyor General to govern surveys included in

Group No. .... which were approved by the Commissioner of the General Land

Office, .., 191..., pursuant to authority contained in the Act of

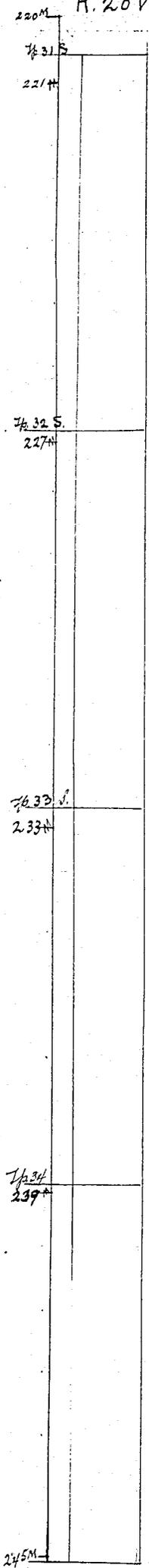
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Survey commenced .., 191...

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R. 20 W.

Utah Nevada Boundary Line



through Tps. 31, 32, 33 + 34 S. R. 20 W. from 329 to 347 sec.

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BOOK A-390

# FIELD NOTES

OF THE SURVEY OF THE

Of the \_\_\_\_\_ Meridian,

In the State of \_\_\_\_\_

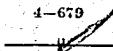
EXECUTED BY

In the capacity of U. S. Surveyor \_\_\_\_\_, under instructions dated \_\_\_\_\_, 191\_\_\_\_,  
issued by the United States Surveyor General to govern surveys included in  
Group No. \_\_\_\_\_, which were approved by the Commissioner of the General Land  
Office, \_\_\_\_\_, 191\_\_\_\_, pursuant to authority contained in the Act of  
Congress dated \_\_\_\_\_, 191\_\_\_\_.

Survey commenced \_\_\_\_\_, 191\_\_\_\_

Survey completed \_\_\_\_\_, 191\_\_\_\_

Obs. and fallings AKG.  
Ex. FAS.

4-679  


E.

BOOK A-390

HBA

# FIELD NOTES

Re  
OF THE SURVEY OF THE

THIRD AUXILIARY GUIDE MERIDIAN

Through

Township No. 31 South

Between

Ranges 17 and 18 W.

Of the Salt Lake Base and Meridian,

In the State of Utah

EXECUTED BY

ROBERT E. L. COLLIER AND RALPH GENTRY

In the capacity of U. S. <sup>Transitmen</sup> ~~Surveyors~~, under instructions dated Aug. 6, 1910, issued by the United States Surveyor General to govern surveys included in Group No. 3, which were approved by the Commissioner of the General Land Office, Sept. 12, 1910, pursuant to authority contained in the Act of Congress dated \_\_\_\_\_, 191\_\_\_\_\_.

Re Survey commenced October 10, 1910

Re Survey completed December 9, 1910.

NAMES AND DUTIES OF ASSISTANTS.

E.R.Bunbury,	Chainman.
John Kiensenberger,	Chainman.
E.H.Anderson,	Chainman.
R.H.Browne,	Chainman.
Edward N.Thompson,	Moundman.
Sidney Reese,	Axman.
Lawrence D.Simmons,	Flagman.

INDEX DIAGRAM.

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INDEX DIAGRAM.

Township....., Range.....

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

We, E. R. Bunbury, John Kienenberger and E. H. Anderson and R. H. Browne  
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the  
chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that  
we will report the true distances to all notable objects, and the true lengths of all lines that we assist in  
measuring, to the best of our skill and ability, and in accordance with instructions given us, in the <sup>re</sup> survey of  
the Third Auxiliary Guide Meridian, through T. 31 S., between Rs. 17 and  
18 W., of the S. L. B. & M., Utah

E. R. Bunbury, John Kienenberger, Chainman.  
E. H. Anderson, R. H. Browne, Chainman.

Subscribed and sworn to before me this 10  
day of October, 1910, ~~1900~~

Robert E. Callied

Instrumentman, G. L. O.



We, I, Edward N. Thompson and \_\_\_\_\_  
do solemnly swear that we will well and truly perform the duties of moundman in the establishment  
of corners, according to the instructions given <sup>me</sup> ~~us~~, to the best of <sup>my</sup> ~~our~~ skill and ability, in the survey of  
the Third Auxiliary Guide Meridian, through T. 31 S., between Rs. 17 and  
18 W., of the S. L. B. & M., Utah

Edward N. Thompson, Moundman.  
\_\_\_\_\_, Moundman.

Subscribed and sworn to before me this 10  
day of October, 1910, ~~1900~~

Robert E. Callied

Instrumentman, G. L. O.



We, I, Sidney Reese and \_\_\_\_\_  
do solemnly swear that we will well and truly perform the duties of axman in the establishment of corners  
and other duties, according to instructions given <sup>me</sup> ~~us~~, to the best of <sup>my</sup> ~~our~~ skill and ability, in the survey of  
the Third Auxiliary Guide Meridian, through T. 31 S., between Rs. 17 and  
18 W., of the S. L. B. & M., Utah

Sidney Reese, Axman.  
\_\_\_\_\_, Axman.

Subscribed and sworn to before me this 10  
day of October, 1910, ~~1900~~

Robert E. Callied

Instrumentman, G. L. O.



I, Lawrence D. Simmons, do solemnly swear that I will well and truly  
perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the  
survey of the Third Auxiliary Guide Meridian, through T. 31 S., between Rs.  
17 and 18 W., of the S. L. B. & M., Utah

Lawrence D. Simmons, Flagman.

Subscribed and sworn to before me this 10  
day of October, 1910, ~~1900~~

Robert E. Callied

Instrumentman, G. L. O.



## Resurvey of

3rd. Auxiliary Guide Meridian West, Through Tps. 31 S., Rs. 17, and 18

As T. 31 S., R. 17 W. is very rough and inaccessible and inconvenient to take Polaris observations to test the instrument at the corners where I am to initiate the surveys of this Tp. I establish a meridian at my camp, approximately in latitude  $38^{\circ}07'N.$  and longitude  $113^{\circ}44'30''W.$  where tests can be made easily and often.

I establish the meridian as follows:

Survey commenced October 10, 1910, and executed with a W. and L. E. Gurley explorers transit, with solar attachment.

The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian, at Salt Lake City, found correct, and was approved by the surveyor general, for Utah, Aug. 25, 1910.

I examine the adjustments of the transit, and correct the levels and collimation errors; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At 10h. a.m. l.m.t. at my camp I set off  $38^{\circ}07'$  on the lat. arc, and  $6^{\circ}29'S.$  on the decl. arc and determine a meridian with the solar, and mark a point in the line thus determined on a peg driven in the ground, 5 chs. N. of my station.

At 11h. 47m. a.m. l.m.t., I set off  $6^{\circ}31'S.$  on the decl. arc and observe the sun on the meridian, the resulting lat. is  $38^{\circ}07'$

At 2h. 00m. p.m. l.m.t., I set off  $6^{\circ}33'S.$  on the decl. arc and  $38^{\circ}07'$  on the lat. arc and determine a meridian with the solar, and mark a point thus determined by driving a nail in the stake set this morning, this point falls 0.5 ins. east of the nail set this a.m.

Chains

At 6h.18m.p.m.l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined on a peg driven in the ground, 5 chs. N. of my station.

October 10, 1910.

October 11, At 7h.30m.a.m.l.m.t., I lay off the azimuth of Polaris  $1^{\circ}29.4'$  to the west, and mark the meridian thus determined, by driving a nail in the peg set yesterday, and this point falls 0.03 ins. west of the point set at 2 p.m. yesterday and 0.02 ins. east of the point set at 10h.a.m. of yesterday.

The solar apparatus, by a.m. and p.m. observations, defines positions for the meridians, respectively about  $0^{\circ}10'$  west and  $0^{\circ}16'$  east of the meridian established by the Polaris observations, therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 7h.40m. a.m. N.  $16^{\circ}20'W.$ ; the angle thus determined gives the mag. decl.  $16^{\circ}20'E.$

October 11, 1910, 10h.00m.a.m.l.m.t., I set off  $38^{\circ}04'$  on the lat. arc, and  $6^{\circ}52'S.$  on the decl. arc, and determine a meridian with the solar at the cor. of Tps. 31 and 32 S., Rs. 17 and 18 W. ✓

Preliminary to commencing the subdivision of this tp. I run north on a blank line, on the 3rd. auxiliary Guide Meridian West, bet. secs. 31 and 36; at 40. chs. I am unable after dilligent search to find any trace of the  $1/4$  sec. cor.

October 11, At this cor. I set off  $6^{\circ}54'S.$  on the decl. arc, and at 11h.47m.a.m.l.m.t. observe the sun on the meridian, the resulting lat. is  $38^{\circ}05'$  less than 1' of the true lat.

I continue my line north, at 80.00 chs. I again make dilligent search for the cor. of secs. 25, 30, 31 and 36 but am unable to find any trace of this cor.

Resurvey of

3rd. Auxiliary Guide Meridian West, through Tps. 31 S., Rs. 17 and 18 W.

Chains	
	<p>As I am unable to find the 1/4 sec. cor. bet. secs. 31 &amp; 36 and the cor. of secs. 25, 30, 31 and 36 on the 3rd. Auxiliary Guide Meridian through T. 31 S., Rs. 17 and 18 W. and as this line was surveyed many years ago, in 1882, as the survey as returned does not show a rough and mountainous country, which it is, and furthermore as this Tp. has not been subdivided on either side, deem it unnecessary to continue a random line to the intersection with the Sixth Standard Parallel South. Therefore I return to the cor. of Tps. 31 and 32 S., Rs. 17 and 18 W. and run North on a true line bet. secs. 31 and 36.</p> <p>Over slightly ascending mountain.</p> <p>Through pine and cedar timber.</p>
10.00	<p>Top of S. end of ridge, 115 ft. above Tp. cor. brs. N. 75° E. &amp; S. 75° W.</p> <p>Descend.</p>
12.00	<p>Wash 15 lks. wide 4 ft. deep course W. 20 ft. below top of ridge, ascend.</p>
18.00	<p>Top of N. end of ridge, 40 ft. above wash brs. N. 25° E. &amp; S. 25° W.</p> <p>Thence descend along N. W. slope</p>
36.25	<p>Wash 8 lks. wide, 2 ft. deep course, S. 60° W. 100 ft. below top of ridge. Thence ascend slightly.</p> <p>Difference between measurements of 40.00 chs. by two sets of chainmen is 4 lks.; position of middle point</p> <p>By 1st. set 39.98 chs.</p> <p>By 2nd. set, 40.02 chs.; the mean of which is</p>
40.00	<p>Set an iron post 3 ft. long 1 in. dia. 26 ins. in the ground for 1/4 sec. cor. marked on brass cap 1/4 S. 36 on W. half and S. 31 on E. half, from which,</p> <p>A pine 12 ins. dia. brs. S. 71° 05' E. 7 lks. dis. marked 1/4 S. 31 B.T. and</p> <p>A pine 6 ins. dia. brs. S. 85° 10' W. 4 lks. dist. marked 1/4 S. 36 B.T.</p> <p>No trace of old 1/4 sec. cor. could be found.</p> <p>25 ft. above wash</p>

Resurvey of

3rd. Auxiliary Guide Meridian, through T. 31 S., Rs. 17 and 18 W.

Chains

- 57.50 Top of spur projects S. 65° E. about 5 chs. 130 ft. above  
1/4 sec. cor. Descend.
- 70.00 Wash 15 lks. wide 3 ft. deep course S. 45° E. 110 ft. below  
top of spur, ascend.
- Difference bet. measurements of 80.00 chs., by two sets  
of chainmen is 6 lks. position of middle point
- By 1st. set 79.97 chs.
- By 2nd. set 80.03 chs.; the mean of which is
- 80.00 Set an iron post 3 ft. long 3 in. dia. 24 ins. in the ground  
for cor. of secs. 25, 30, 31 and 36. marked on brass cap,
- T. 31 S on N. half.
- R. 18 W. S. 25 on N. W.
- R 17 W S 30 on N. E.
- S 31 on S. E. and
- S 36 on S. W. quadrant from which,
- A pine 10 ins. dia. brs. N. 67° 15' W. 27 lks. dist.  
marked T. 31 S. R. 18 W. S 25 B. T.
- A pine 8 ins. dia. brs. N. 61° 35' E. 41 lks. dist.  
marked T. 31 S., R. 17 W. S. 30 B. T.
- A pine 8 ins. dia. brs. S. 58° 05' E. 37 lks. dist.  
marked T. 31 S., R. 17 W. S. 31 B. T. and
- A pine 10 ins. dia. brs. S. 12° 40' W. 27 lks. dist.  
marked T. 31 S., R. 18 W. S. 36 B. T.
- 100 ft. above wash, and is the top of ascent. Desc.
- After dilligent search no trace of old cor. could be  
found.
- Land, mountainous.
- Soil, very stony, 4th. rate.
- Timber, cedar and pine.
- Mountainous or heavily timbered land 80 chs.

October 11, 1910

Resurvey of

3rd. Auxiliary Guide Meridian, through T. 31 S., Rs. 17 and 18 W.

Chains.

October 12, At 9h.00m. a.m. l.m.t. I set off  $38^{\circ}05'$  on the lat. arc. and  $7^{\circ}13'$  S. on the decl. arc. and determine a meridian with the solar, at the cor. of secs. 25, 30, 31 & 36. Thence I run North on true line bet. secs. 25 and 30. Over slightly descending land. Through pine and cedar timber.

3.20 Wash 10 lks. wide 2 ft. deep course  $S. 70^{\circ}W.$   
10 ft. below sec. cor. Ascend. Timber becomes scattering. Difference between measurements of 40.00 chs. by two sets of chainmen, is 6 lks.; position of middle point

By 1st. set, 39.97 chs.

By 2nd. set, 40.03 chs.; the mean of which is

40.00 Set an iron post 3 ft. long 1 in. dia. 26 ins. in the ground for  $1/4$  sec. cor. marked on brass cap  $1/4$  S 25 on W. half and S 30 on E. half, from which,

A pine 8 ins. dia. brs.  $S. 32^{\circ}30'W.$  30 lks. dist. marked  $1/4$  S 25 B.T. and

A pine 26 ins. dia. brs.  $N. 5^{\circ}E.$  6 lks. dist. marked  $1/4$  S. 30. B.T.

600 ft. above wash.

After diligent search I was unable to find any trace of the old  $1/4$  sec. cor. ✓

42.50 Top of ridge 35 ft. above  $1/4$  sec. cor. brs.  $N. 82^{\circ}W.$

A high peak bears  $N. 82^{\circ}W.$  about 40 chs. dist.

Thence descend along the E. slope of ridge.

48.00 Bottom of descent 80 ft. below top of ridge, surface here very rough, thence on nearly level line.

53.50 Thence descend along E. slope of ridge brs.  $N. 25^{\circ}W.$  and S.

62.65 Bottom of gulch 90 ft. below point of descent, course  $S. 75^{\circ}E.$  Thence ascend along S. slope of spur.

73.50 Top of spur 240 ft. above bottom of gulch brs.  $N. 70^{\circ}E.$  &  $S. 70^{\circ}$

Thence over nearly level line, surface very rough.

75.50 Thence descend along the N.W. slope of spur.

Resurvey of

3rd. Auxiliary Guide Meridian, through T. 31 S., R. 17 and 18 W.

Chains

Difference between measurements of 80 chs., by two sets of chainmen is 8 lks.; position of middle point

By 1st. set 80.04 chs.

By 2nd. set 79.96 chs.; the mean of which is

80.00 Set an iron post 3 ft. long 3 in. dia. 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30. marked on brass cap

T 31 S on N. half

R 18 W S 24 on N.W.

R 17 W S 19 on N.E.

R 17 W S 30 on S.E. and

R 18 W S 25 on S.W. quadrant, from which

A pine 6 ins. dia. brs. N. 26°45' E. 17 lks. dist.

marked T. 31 S. R. 17 W. S. 19. B. T.

A pine 10 ins. dia. brs. N. 54°50' W. 1.14 chs. dist.

marked T. 31 S. R. 18 W. S. 24. B. T.

A pine 6 ins. dia. brs. S. 29°10' W. 21 lks. dist.

marked T. 31 S. R. 18 W. S. 25. B. T.

A pine 8 ins. brs. S. 45°55' E. 19 lks. dist.

marked T. 31 S., R. 17 W. S. 30. B. T.

55 ft. below top of spur.

After making dilligent search for old sec. cor. I was unable to find any trace of it.

Land, mountainous.

Soil, stony, 4th. rate.

Timber, scattering cedar and pine.

Mountainous or heavily timbered land 80.00 chs.

October 12, At this cor. I set off 7°16' S. on decl. arc, and

at 11h. 47m. a.m. l.m.t. observe the sun on the meridian,

the resulting lat is 38°06'

Resurvey of

3dr. Auxiliary. Guide Meridian, through T. 31 S., bet. Rs. 17 and 18 W.

Chains	<p>North on a true line bet. secs. 19 and 24.                  Over rough descending N.W. slope of mountain.                  Through scattering cedar and pine timber.</p>
5.40	<p>Bottom of wash 30 lks. wide, 3 ft. deep course N. 45° W.                  145 ft. below sec. cor. Thence ascend along S.W. slope                  of spur.</p>
10.25	<p>Top of spur, projects N. 60° W. about 6 chs.                  22 ft. above bottom of wash. Descend.</p>
29.50	<p>Bottom of gulch, 250 ft. below top of spur, 50 lks. wide                  5 ft. deep course W. Ascend.                  Difference bet. measurements of 40.00 chs. by two sets of                  chainmen, is 4 lks.; position of middle point                  . By 1st set, 39.98 chs.                  By 2nd set, 40.02 chs.; the mean of which is</p>
40.00	<p>Set an iron post 3 ft. long 1 in. dia. 26 ins. in the ground                  for 1/4 sec. cor. marked on brass cap, 1/4 S. 24 on W. half                  and S. 19 on E. half, from which                  A pine 6 ins. dia. brs. S. 54° 05' E. 1.05 chs. dist.                  marked T. 31 S., R. 17 W. S. 19 B. T.                  A pine 6 ins. dia. brs. N. 72° 40' W. 1.10 chs. dist.                  marked T. 31 S., R. 18 W. S. 24 B. T.                  75 ft. above bottom of gulch.                  After making diligent search I was unable to find old                  1/4 sec. cor.                  On top of ascent. Thence on nearly level line.</p>
	<p>October 12, 1910.</p>
	<p>October 13, At 8h. 30m. a.m. 1.m.t., I set off 38° 06' on the                  lat arc, and 7° 35' S. on the decl. arc, and determine a                  meridian with the solar at this 1/4 sec. cor.                  Thence I continue my line North,</p>
48.00	<p>Enter dense pine and cedar timber and point of descent                  brs. E. and W.</p>
64.00	<p>Timber becomes scattering.</p>
71.00	<p>Wagon road from Lund to Modena, brs. N. 75° E. and S. 75° W.</p>
73.65	<p>Wash 10 lks. wide 1 ft. deep course N. 80° E.</p>

Resurvey of

3rd. Auxiliary Guide Meridian, through T. 31 S. bet. Rs. 17 and 18. W.

Chains

250 ft. below point descent. Ascend.

Difference bet. measurements of 80.00 chs. by two sets of chainmen is 2 lks. position of middle point

By 1st set, 79.99 chs.

By 2nd. set, 80.01 chs.; the mean of which is

80.00 Set an iron post 3 ft. long 3 ins. dia. 24 ins. in the ground for cor. of secs. 13, 18, 19 and 24, marked on brass cap

T 31 S on N. half

R 18 W S 13 on N.W.

R 17 W S 18 on N.E.

S 19 on S.E. and

S 24 on S.W. quadrant ; from which

A cedar 14 ins. dia. brs. N.  $46^{\circ}30'$  W. 45 lks. dist. marked T 31 S. R. 18 W. S. 13 B. T.

A pine 6 ins. dia. brs N.  $11^{\circ}55'$  E. 1.23 chs. dist. marked T. 31 S. R. 17 W. S. 18 B. T.

A cedar 12 ins. dia. brs. S.  $45^{\circ}32'$  E. 1.51 chs. dist. marked T. 31 S. R. 17. W. S. 19 B. T. and

A pine 8 ins. dia. brs. S.  $42^{\circ}47'$  W. 1.39 chs. dist. marked T. 31 S., R. 18 W. S. 24 B. T.

35 ft. above wash.

After making diligent search for old sec. cor. I was unable to find any trace of it.

Land, mountainous.

Soil, stony 4th. rate.

Timber, cedar and pine.

Undergrowth, sage brush and scant growth of bunch grass.

Mountainous or heavily timbered land 80.00 chs.

October 13, At this cor. I set off  $7^{\circ}39'$  S. on the decl. arc and at 11h. 46m. a.m. l.m. t., observe the sun on the meridian, the resulting lat. is  $38^{\circ}07'$

## Resurvey of

3rd. Auxiliary Guide Meridian, through T. 31 S., bet. Rs. 17 and 18 W.

## Chains

- North on a true line bet. secs. 13 and 18.  
Over rough ascending mountain.  
Through scattering pine and cedar timber.
- 10.00 Enter dense cedar and pine timber, brs. E. and W.
- 15.00 Top of spur projects S. 50° E. about 8 chs.  
190 ft. above sec. cor. Thence descend slightly along east slope of ridge.
- 31.80 Bottom of descent brs. E. and W.  
80 ft. below top of spur, much loose rock on surface.  
Thence ascend.
- 38.60 Top of spur projecting from ridge brs. N. 60° E.  
50 ft. above point of ascent. Thence descend.  
Difference bet. measurements of 40 chs., by two sets of chainmen, is 4 lks.; position of middle point  
By 1st set, 40.02 chs.  
By 2nd set, 38.98 chs.; the mean of which is
- 40.00 Set an iron post 3 ft. long 1 in. dia. 26 ins. in the ground for 1/4 sec. cor. marked on brass cap 1/4 S 13 on W. half and S. 18 on E. half, from which  
A pine 10 ins. dia. brs. N. 65° 55' W. 26 lks. dist.  
marked 1/4 S 13 B. T. and  
A pine 10 ins. dia. brs. N. 76° E. 56 lks. dist.  
marked 1/4 S 18 B. T.  
35 ft. below top of spur.  
After diligent search I was unable to find any trace of the old 1/4 sec. cor.
- 43.50 Wash 15 lks. wide 2 ft. deep course N. 60° E.  
75 ft. below 1/4 sec. cor. Ascend.  
Timber becomes thicker, brs. N. 45° E.
- 61.50 Top of spur projects S. 70° E. about 8 chs.  
250 ft. above wash, surface very stony. Descend.
- 68.50 Bottom of depression drains S. 65° E.  
130 ft. below top of spur. Ascend.

Resurvey of

3rd. Auxiliary Guide Meridian, through T. 31 S. bet. Rs. 17 and 18 W.

Chains

Difference bet. measurements of 80.00 chs., by two sets of chainmen, is 4 lks.; position of middle point

By 1st set, 79.98 chs.

By 2nd set, 80.02 chs.; the mean of which is

80.00 Set an iron post 3 ft. long 3 ins. dia. 24 ins. in the ground for cor. of secs. 7, 12, 13 and 18, marked on brass cap

T 31 S on N. half

R 18 W S 12 on N.W.

R 17 W S 7 on N.E.

S 18 on S.E. and

S 13 on S.W. quadrant,; from which

A pine 12 ins. dia. brs. N.  $49^{\circ}30'$  E. 44 lks. dist. marked T. 31 S. R. 17 W. S. 7. B. T.

A pine 8 ins. dia. brs. N.  $46^{\circ}15'$  W. 1.12 lks. dist. marked T. 31 S. R. 18 W. S. 12 B. T.

A pine 12 ins. dia. brs. S.  $8^{\circ}05'$  W. 51 lks. dist.

marked T. 31 S. R. 18 W. S. 13 B. T. and

A pine 6 ins. dia. brs. S.  $72^{\circ}20'$  E. 46 lks. dist.

marked T. 31 S. R. 17 W. S. 18 B. T.

This cor. stands on top of south edge of spur.

225 ft. above depression.

After diligent search I was unable to find any trace of old sec. cor.

Land, mountainous. Surface very rough.

Soil, stony 4th. rate.

Timber, cedar and pine.

Undergrowth, scattering sage brush and scant growth of bunch grass.

Mountainous or heavily timbered land 80.00 chs.

October 13, 1910.

Resurvey of

3rd. Auxiliary Guide Meridian, through T. 31 S. bet. Rs. 17 and 18 W.

Chains

October 14, At 8h.00m.a.m.1.m.t., I set off  $38^{\circ}08'$  on the lat. arc and  $7^{\circ}56'S$ . on the decl. arc and determine a meridian with the solar at the cor. of sec. 7, 12, 13 & 18.

Thence I run,

North on a true line bet. secs. 7 and 12.

Over nearly level line on top of spur.

Through cedar and pine timber.

7.00 Top of N. side of spur, projects  $S. 65^{\circ}E$ . about 15 chs.  
Timber becomes scattering brs. E. and W. Descend.

18.05 Bottom of gulch 50 lks. wide 3 ft. deep course  $N. 75^{\circ}E. \& S. 75^{\circ}W$ .  
260 ft. below top of spur, Ascend.

24.00 Top of spur projects E. about 5 chs.  
60 ft. above bottom of gulch. Descend.

38.25 Bottom of gulch 40 lks. wide 4 ft. deep course  $N. 25^{\circ}W$ .  
350 ft. below top of spur, Thence very slight ascent.  
Difference bet. measurements of 40.00 chs. by two sets of chainmen, 14 lks.; position of middle point

By 1st set, 79.93 chs.

By 2nd Set, 80.07 chs.; the mean of which is

40.00 Set an iron post 3 ft. long 1 in. dia.  $.26$  ins. in the ground for  $1/4$  sec. cor. marked on brass cap  $1/4 S 12$  on W. half and  $S 7$  on E. half, from which

A pine 12 ins. dia. brs.  $S. 88^{\circ}E$ . 32 lks. dist.  
marked  $1/4 S. 7 B.T.$  and

A pine 14 ins. dia. brs,  $S. 53^{\circ}40'W$ . 35 lks. dist  
marked  $1/4 S. 12 B.T.$

6 ft. above gulch.

After diligent search I was unable to find any trace of old  $1/4$  sec. cor.

41.50 Top of spur or elevation 3 ft. above  $1/4$  sec. cor.  
projects  $N. 45^{\circ}W$ . about 4 chs. Descend slightly.

54.35 Wash 20 lks. wide 2 ft. deep course  $N. 45^{\circ}E$ .  
105 ft. below top of spur .

Timber becomes dense brs. E. and W. Ascend..

Resurvey of

3rd. Auxiliary Guide Meridian, through T. 31 S. bet. Rs. 17 and 18 W.

Chains

64.50 Top of spur projects S. 75° E. about 6 chs.  
60 ft. above wash descend.

70.50 Wash 5 lks. wide 2 ft. deep course E.  
18 ft. below top of spur. An old shaft 2 chs. W. of line.  
Ascend slightly.  
No difference in measurements bet. 1st. and 2nd. set of chainmen,

80.00 Set an iron post 3 ft. long 3 ins. dia. 20 ins. in the ground to solid rock, in a mound of earth and stone 3 ft. base 4 ins. high around post for cor. of secs. 1, 6, 7 and 12 marked on brass cap,

T 31 S. on N. half

R 18 W S 1 on N.W.

R 17 W S 6 on N.E.

S 7 on S.E. and

S 12 on S.W. quadrant, ; from which

A pine 6 ins. dia. brs. N. 10° 10' W. 1.42 chs. dist. marked T. 31 S. R. 18 W. S. 1 B. T.

A cedar 6 ins. dia. brs. N. 26° 50' E. 94 lks. dist. marked T. 31 S. R. 17 W. S. 6 B. T.

A pine 8 ins. dia. brs. S. 57° 40' E. 1.12 chs. dist. marked T. 31 S. R. 17 W. S. 7 B. T. and

A pine 8 ins. dia. brs. S. 11° 45' W. 1.18 chs. dist. marked T. 31 S. R. 18 W. S. 12 B. T.

Cor. is 15 ft. above wash.

After diligent search I was unable to find any trace of old sec. cor.

Land, mountainous, and rough.

Soil stony, 4th. rate.

Timber, cedar and pine.

Undergrowth, scattering sage brush and scant growth of bunch grass.

Mountainous or heavily timbered land 80.00 chs.

October 14 At this cor. I set off 8° 01' S. on the decl. arc and at 11h. 46m. a.m. l.m.t., observe the sun on the merid-

## Resurvey of

3rd. Auxiliary Guide Meridian, through T. 31 S. bet. Rs. 17 and 18 W.

Chains

ian, the resulting lat, is  $38^{\circ}09'$ 

North on true line bet. secs. 1 and 6,

Over rolling mountainous country.

Through cedar and pine timber.

0.45 Wagon road brs. N.  $75^{\circ}$  E.2.30 Wash 8 lks. wide 2 ft. deep, course S.  $45^{\circ}$  E.

6 ft. below sec. cor. Ascend.

5.50 Wagon road, brs. N.  $45^{\circ}$  W. and S.  $45^{\circ}$  E.

7.50 Top of ascent, 35 ft. above wash brs. E. and W. Descend.

14.30 Wash 10 lks. wide 3 ft. deep, course S.  $45^{\circ}$  E.

55 ft. below point of descent. Ascend.

26.60 Top of ridge brs. S.  $65^{\circ}$  E. 145 ft. above wash. Descend.

29.00 Timber becomes scattering brs. E. and W.

36.75 Wash 10 lks. wide 2 ft. deep, course N.  $70^{\circ}$  E.

115 ft. below top of ridge. Ascend

Difference bet. measurements of 40.00 chs. by two sets of chainmen, is 2 lks.; position of middle point

By 1st set, 39.99 chs.

By 2nd set, 40.01 chs. the mean of which is

40.00 Set an iron post 3 ft. long 1 in. dia. 26 ins. in the ground for  $1/4$  sec. cor. marked on brass cap  $1/4$  S 1 on W. half and S. 6 on E. half, from whichA pine 8 ins. dia. brs. S.  $71^{\circ}30'$  W. 1.07 chs. dist. marked  $1/4$  S. 1 B.T.A cedar 10 ins. dia. brs. S.  $88^{\circ}50'$  E. 1.32 chs. dist. marked  $1/4$  S. 6 B.T.

This cor. is 12 ft. above wash.

After diligent search I was unable to find any trace of old  $1/4$  sec. cor.

57.00 Top of spur, projects E. 2 chs.

80 ft. above  $1/4$  sec. cor. Descend.

60.00 Timber becomes dense brs. E. and W.

93.00 Wash 8 lks. wide, 2 ft. deep drains E. 70 ft. below top of

## Resurvey of

3rd. Auxiliary Guide Meridian, through T. 31 S. bet. Rs. 17 and 18 W.

Chains	<p>spur, Ascend.</p> <p>96.25 Old wagon road, brs. N. 15° E. Timber becomes scattering.</p> <p>102.00 Top of spur projects S. 45° E. 5 chs. 10 ft. above wash.</p> <p>Descend.</p> <p>Difference bet. measurements of 112.56 chs., by two sets of chainmen, 12 lks.; position of middle point.</p> <p>By 1st set, 112.50 chs.</p> <p>By 2nd set, 112.62 chs.; the mean of which is</p> <p>112.56— The distance to the intersection of the Sixth Standard Parallel South as given by the surveyor general, at this point I set a temp. closing cor. for T. 31 S., Rs. 17 and 18 W. and make a diligent search for the old closing cor. of secs. 1 and 6, and the old Standard cor. of T. 30 S. Rs. 17 and 18 W. but am unable to find any trace of either of these cors.</p> <p>Land, mountainous.</p> <p>Soil, stony 4th. rate.</p> <p>Timber, cedar and pine.</p> <p>Undergrowth, scattering sage brush and scant growth of bunch grass.</p> <p style="text-align: right;">October 14, 1910.  <i>Robert E. L. Collier</i>  Instrumentman G.L.O.</p> <p>Dec. 9, 1910: For reasons already stated in notes of E. Bdy. of this Tp., I retrace the line between secs. 1 and 6, from the <math>\frac{1}{4}</math> sec. cor., for distance; and at</p> <p>110.23 Intersect the 6th Standard Parallel South 13.87 chs. W. of the re-established standard cor. of Tp. 30 S., Rs. 17 and 18 W., heretofore described.</p> <p>I destroy the temporary corner, previously set, and set an iron post 3 ft. long, 3 in. in dia., 24 ins. in the ground; for closing cor. of Tp. 31 S., Rs. 17 and 18 W., mkd. on brass cap</p> <p>but am unable to find any trace of</p>
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Resurvey of

3rd Auxiliary Guide Meridian through T.31 S., Bet. Rs.17 and 18. W.

Chains.

T 30 S in N. half,

R 18 W S 36 in NW.

R 17 W S 31 in NE.

C C T 31 S in S. half,

R 18 W S 1 in SW.

R 17 W S 6 in SE. quadrants; from which

A pine 6 ins. dia. bears S.  $60^{\circ}35'W$ . 45 lks. dist.

mkd. C C T 31 S R 18 W S 1 B T

A pine 8 ins. dia. bears S.  $58^{\circ}10'E$ . 277 lks.

dist., mkd. C C T 31 S R 17 W S 6 B T

*Paepko Gentry*  
Instrumentman G.L.O.

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**Page**

FINAL OATHS OF ~~DEPUTY SURVEYOR AND HIS ASSISTANTS.~~

LIST OF NAMES.

A list of the names of the individuals employed by Robert E.L. Collier, Instrument  
~~man, G.L.O.~~ <sup>Transitman</sup> United States ~~Deputy Surveyor~~, to assist in running, measuring, and  
 marking the lines and corners described in the foregoing field notes of the <sup>re</sup> survey of the Third Auxil-  
iary Guide Meridian, through T. 31 S., between Rs. 17 and 18 W. of the S.  
L.B. & M.. Utan,  
 showing the respective capacities in which they acted:

- E.R. Bunbury, John Kienenberger, Chainmen.
- E.H. Anderson, R.H. Browne, Chainmen.
- Edward N. Thompson, Moundman.
- Sidney Reese, Axman.
- Lawrence D. Simmons, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Robert E.L. Collier, Instrumentmen Gen-  
~~eral Land Office~~ <sup>Transitman</sup> United States ~~Deputy Surveyor~~ <sup>TC</sup>, in <sup>re</sup> surveying all  
 those parts or portions of the Third Auxiliary Guide Meridian through Township 31  
South, between Ranges 17 and 18 West  
 \_\_\_\_\_ of the Salt Lake  
Base and \_\_\_\_\_ meridian, State \_\_\_\_\_ of Utah, which are represented  
 in the foregoing field notes as having been surveyed by him and under his direction; and that said <sup>re</sup> survey  
 has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the  
 corner monuments established, according to the instructions furnished by the United States Surveyor  
 General for Utah

- E.R. Bunbury, John Kienenberger, Chainmen.
- E.H. Anderson, R.H. Browne, Chainmen.
- Edward N. Thompson, Moundman.
- Sidney Reese, Axman.
- Lawrence D. Simmons, Flagman.

Subscribed and sworn to before me this 14  
 day of October, 1910, ~~X33X~~

Robert E.L. Collier

Instrumentman, G.L.O.



**TRANSITION**  
**FINAL OATH OF UNITED STATES DEPUTY SURVEYOR**

I, Robert E. L. Collier, U.S. Transition 100.01, United States Deputy Surveyor, do solemnly swear that, in pursuance of <sup>an assignment</sup> ~~A contract~~ received from Thomas Hull, United States Surveyor General for Utah, bearing date of the 6 day of August, 1910, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of the resurvey of the Third Auxiliary Guide Meridian, through Township 31 South, between Ranges 17 and 18 West

of the Salt Lake Base and meridian, in the State of Utah, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

*Robert E. L. Collier*

United States Deputy Surveyor  
100.01 United States Transition 100.

Subscribed by said ROBERT E. L. COLLIER and sworn to before me  
this 26 day of March, 1910.

*Thomas Hull*  
U.S. Surveyor-General  
for Utah.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL

Salt Lake City, Utah, Feb. 26 1910

The foregoing field notes of the survey of <sup>to</sup> the Third Auxiliary Guide Meridian, through Township 31 South, between Ranges 17 and 18 West of the Salt Lake Base and Meridian, Utah.

examined by THOMAS HULL, United States Surveyor General, in pursuance of special instructions, dated August 6, 1910, having been solemnly examined and the necessary corrections and explanations made, the said field notes, and the survey's final description, are hereby approved.

*Thomas Hull*  
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_ has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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BOOK A-390

F.

*MLB*  
*FE*

# FIELD NOTES

RE  
OF THE SURVEY OF THE

EAST BOUNDARY

AND

SURVEY OF SUBDIVISIONAL LINES

TOWNSHIP NO. 31 SOUTH, RANGE NO. 17 WEST

*Anderson says*

52  
88  
104  
111  
114

Of the SALT LAKE BASE AND Meridian,

In the State of U T A H

EXECUTED BY

Robert E. L. Collier, Ralph Gentry and Eric H. Anderson

Transitmen

In the capacity of U. S. ~~Surveyor~~, under instructions dated Aug. 6, 1910,

issued by the United States Surveyor General to govern surveys included in

Group No. 3, which were approved by the Commissioner of the General Land

Office, Sept. 12, 1910, pursuant to authority contained in the Act of

Congress dated, 1910

Survey commenced October 17, 1910,

Survey completed December 8, 1910.

*Rec. T. Pody - 06 - 31 - 03 ✓*

*Index - 62 - 27 - 62 ✓*

NAMEs AND DUTIES OF ASSISTANTS.

E.R.Bunbury, Chainman. ✓  
 John G.Kienenberger, Chainman. ✓  
 E.H.Anderson, Chainman. ✓  
 R.H.Browne, Chainman. ✓  
 Arnold J.Low, Chainman. ✓  
 Chas.S.Merrill, Chainman. ✓  
 Lawrence D.Simmons, Chainman. ✓  
 Roy Penn Barton, Chainman. ✓  
 Edward N.Thompson, Moundman. ✓  
 Arnold J.Low, Moundman. ✓  
 L.S.Nuttall, Moundman. ✓  
 W.Malcolm, Moundman. ✓  
 Sidney Reese, Axman. ✓  
 Joseph Murdock, Axman. ✓  
 Roy Penn Barton, Flagman. ✓  
 Lawrence D.Simmons, Flagman. ✓  
 Chas.S.Merrill, Flagman. ✓

INDEX DIAGRAM.

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For preliminary affidavits of Bunbury, Kienenberger, Anderson and Browne, as chainmen, see book "A" T.34 S., R.17 W.  
 For preliminary affidavits of Thompson and Low, as moundmen, and Simmons and Merrill as flagman, see book "A" T.34 S., R.17 W.  
 For preliminary affidavit of Reese as axman, see book "C" T.32 S. R.18 W.

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*Meanders Page*.....

PRELIMINARY OATHS OF ASSISTANTS.

~~XXX~~ I, Arnold Low

do solemnly swear that ~~we~~ I will well and faithfully execute the duties of chainman; that ~~we~~ I will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that ~~we~~ I will report the true distances to all notable objects, and the true lengths of all lines that ~~we~~ I assist in measuring, to the best of <sup>my</sup> skill and ability, and in accordance with instructions given <sup>me</sup> us, in the survey of Subdivision of T. 31 S.. R. 17 W., S.L.B. & M., Utah.

....., Chainman.

*Arnold Low*

....., Chainman.

Subscribed and sworn to before me this 24 day of October 1910. ~~XXXX~~ 190

*Robert E. L. Collins*

Instrumentman G.L.O.



WE, ..... and .....

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

....., Moundman.

....., Moundman.

Subscribed and sworn to before me this ..... day of ....., 190



WE, ..... and .....

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this ..... day of ....., 190



I, ....., do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this ..... day of ....., 190



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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

~~We~~, I, Lawrence D. Simons and

do solemnly swear that ~~we~~ will well and faithfully execute the duties of chainmen; that ~~we~~ will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that ~~we~~ will report the true distances to all notable objects, and the true lengths of all lines that ~~we~~ assist in measuring, to the best of ~~our~~ <sup>my</sup> skill and ability, and in accordance with instructions given ~~us~~ <sup>me</sup> in the survey of Subdivision of Township 31 S., Ranges 17 and 18 W., S.L.B. & M., Utah.

....., Chairman.

*Lawrence D. Simons*, Chairman.

Subscribed and sworn to before me this 30 }  
day of October, 1910, 1900 }



*Ralph Gentry*  
Instrumentman, G.L.O.

We, L. S. Nuttall and W. Malcolm

do solemnly swear that ~~we~~ will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given ~~us~~ to the best of ~~our~~ skill and ability, in the survey of Subdivision of Township 31 S., Ranges 17 and 18 W., S.L.B. & M., Utah

....., Moundman.

*L. S. Nuttall*

....., Moundman.

*W. Malcolm*

Subscribed and sworn to before me this 30 }  
day of October, 1910, 1900 }



*Ralph Gentry*  
Instrumentman, G.L.O.

We, ..... and

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

....., Axman.

....., Axman.

Subscribed and sworn to before me this ..... }  
day of ....., 1900 }



I, ....., do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of

....., Flagman.

Subscribed and sworn to before me this ..... }  
day of ....., 1900 }



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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

~~We~~, I, Chas. S. Merrill ~~and~~

do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given me, in the survey of Subdivision of Tps. 31 S., Rs. 17 and 18 W. S.L.B. & M., Utah.

*Chas S Merrill*

Chainman.

Chainman.

Subscribed and sworn to before me this 20 }  
day of November, 1910. xxx }  
190 }

*Ralph Shurtz*

Instrumentman, G.L.O.



WE, \_\_\_\_\_ and \_\_\_\_\_

do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of

\_\_\_\_\_, Moundman.

\_\_\_\_\_, Moundman.

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 190 \_\_\_\_\_ }



WE, \_\_\_\_\_ and \_\_\_\_\_

do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of

\_\_\_\_\_, Axman.

\_\_\_\_\_, Axman.

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 190 \_\_\_\_\_ }



I, \_\_\_\_\_, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of \_\_\_\_\_

\_\_\_\_\_, Flagman.

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 190 \_\_\_\_\_ }



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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, \_\_\_\_\_ and \_\_\_\_\_ do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of \_\_\_\_\_

\_\_\_\_\_, Chainman.  
\_\_\_\_\_, Chainman.

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 190 }



WE, \_\_\_\_\_ and \_\_\_\_\_ do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of \_\_\_\_\_

\_\_\_\_\_, Moundman.  
\_\_\_\_\_, Moundman.

Subscribed and sworn to before me this \_\_\_\_\_ }  
day of \_\_\_\_\_, 190 }



We; I, Joseph Murdock, \_\_\_\_\_ and \_\_\_\_\_ do solemnly swear that we will well and truly perform the duties of axman in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of subdivision of Tps. 31 S., Rs. 17 and 18 W., of the S.L.B. & M., Utah.

Joseph Murdock, Axman.  
\_\_\_\_\_, Axman.

Subscribed and sworn to before me this 22 }  
day of November, 1910., 190 }



Ralph Gentry  
Instrumentman, G.L.O.

I, Roy Penn Barton \_\_\_\_\_, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of Subdivision of T. 31 S., Rs. 17 and 18 W., of the S.L.B. & M., Utah.

Roy Penn Barton, Flagman.

Subscribed and sworn to before me this 22 }  
day of November, 1910., 190 }



Ralph Gentry  
Instrumentman, G.L.O.

## Resurvey of E.Bdy.. T.31 S., R.17 W.

Survey commenced Oct.18, 1910, and executed with the instrument described in book "E" of this survey. Believing from recent tests made in the resurvey of the 3d Auxiliary Guide Meridian, T.31 S., between Rs.17 and 18 W., that my instrument is in adjustment, I deem it unnecessary to repeat the tests at this time.

At 9h Om a.m.l.m.t., I set off  $38^{\circ} 04' N.$  on the lat.arc;  $9^{\circ} 26' S.$  on the decl.arc; and determine a meridian with the solar at the cor.of Tps.31 and 32 S., Rs. 16 and 17 W., which is a trachyte, 14 x 10 x 5 ins. above ground, marked and witnessed as described by the surveyor general. I destroy this stone and in its place

Set an iron post 3 ft.long, 3 ins.dia., 24 ins.in the ground, for cor.of Tps.31 and 32 S., Rs.16 and 17 W. marked on brass cap

T 31 S in N.half.

T 32 S in S.half,

R 17 W S 36 in NW.

R 16 W S 31 in NE..

S 6 in SE.; and

S 1 in SW.quadrant,I raise a mound of stone 2 ft.base,  $1\frac{1}{2}$  ft.high S.of cor.

Preliminary to commencing the subdivision of this township, I run north on a blank line, on the E.bdy.of sec. 36; at 40.00 chs., after diligent search, I am unable to find any trace of old  $\frac{1}{4}$  sec.cor.; and at 80.00 chs. I make diligent search over a radius of 5 chs., but am unable to find any trace of the old cor.of secs.25,30, 31, and 36.

As I am unable to find the old  $\frac{1}{4}$  sec.cor.bet.secs.31 and 36, nor the cor.of secs.25,30,31, and 36; and as

Resurvey of E.Bdy. of T.31 S., R.17 W.

Chains.

the line was surveyed many years ago, (in 1882); the notes as furnished me by the surveyor general, do not show the line to be rough and mountainous, as I find it; and, furthermore, as the townships dependent upon it have not been subdivided, I deem it unnecessary to continue my blank line north to an intersection with the Sixth Standard Parallel South. I therefore return to the re-established cor. of Tps. 31 and 32 S., Rs. 16 and 17 W., and run

North on true resurvey line bet. secs. 31 and 36.

Over slightly ascending mountain; through cedar and

2.30 Red pine timber; projects S. 53° E. about 8 chs., 8 ft. above

2.50 Top of spur, projects S. 30° E. about 8 chs., 8 ft. above sec. cor.

Thence descend along NE. slope of spur.

11.15 Wash, 10 lks. wide, 2 ft. deep, course S. 70° E., 32 ft. below top of spur; ascend.

13.75 Top of spur, projects S. 30° E., about 4 chs., 15 ft. above wash. Descend.

15.65 Wash, 10 lks. wide, 2 ft. deep, course S. 70° E., 10 ft. below top of spur. Ascend.

23.00 Top of south side of ridge, bears S. 45° E., 65 ft. above wash; thence very gentle ascent.

30.00 Top of N. side of ridge, bears E. and W., 14 ft. above top of south side of ridge. Descend.

40.00 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 36 in W. half, and S 31 in E. half; from which

A pine 8 ins. dia. bears N. 82° E. 30 lks. dist.

marked  $\frac{1}{4}$  S 31 B T

A cedar 8 ins. dia. bears S. 84° 30' W. 22 lks. dist.

marked  $\frac{1}{4}$  S 36 B T

This cor. is 70 ft. below top of spur.

Resurvey of the E. Bdy. of T. 31 S., R. 17 W.

Chains

I again make diligent search for the old 1/4 sec. cor. but am unable to find any trace of it.

October 18, At this cor. I set off 9°30'S. on the decl. arc and at 11h. 45m. a.m. l.m.t., observe the sun on the meridian the resulting lat. is 38°05'.

43.25 Wash 10 lks. wide 2 ft. deep, course N. 45° E.  
14 ft. below 1/4 sec. cor. Thence on nearly level line over broken ground.

56.00 Begin ascent brs. E. and W.

75.25 Top of ridge brs. E. and W. 285 ft. above point of ascent.  
Descend.

80.00 Set an iron post 3 ft. long 3 ins. dia. 24 ins. in the ground for cor. of secs. 25, 30, 31 and 36. marked on brass cap

T 31 S on N. half

R 17 W S 25 on N.W.

R 16 W S 30 on N.E.

S 31 on S.E. and

S 36 on S.W. quadrant, ; from which

A pine 14 ins. dia. brs. N. 71° W. 98 lks. dist.

marked T. 31 S. R. 17 W. S. 25 B. T.

A cedar 10 ins. dia. brs. N. 31° 10' E. 44 lks. dist.

marked T. 31 S. R. 16 W. S. 30 B. T.

A cedar 10 ins. dia. brs. S. 88° E. 53 lks. dist.

marked T. 31 S. R. 16 W. S. 31 B. T.

A cedar 8 ins. dia. brs. S. 73° 45' W. 59 lks. dist.

marked T. 31 S. R. 17 W. S. 36 B. T.

50 ft. below top of ridge.

I again make search for this old sec. cor. but am unable to find any trace of it.

Land, mountainous and rough.

Soil, stony. 4th. rate.

Timber, cedar and pine.

Undergrowth, scattering sage brush and scant growth of bunch grass.

Mountainous or heavily timbered land 80.00 chs.

Resurvey of the E.Bdy.of T.31 S.,R.17 W.

Chains.

North on a true Resurvey line bet.secs.25 and 30.  
Over descending land.

Through cedar and pine timber.

2.20 Wash 10 lks.wide 2 ft.deep course S.75°E.

50 ft. below sec.cor. Ascend.

9.50 Top of spur projects S.45°E.about 6 chs.

115 ft. above wash. Descend.

17.25 Bottom of depression,drains E.

155 ft.below top of spur. Ascend.

20.50 Top of spur projects S.50°E.about 6 chs.

45 ft. above bottom of depression, descend.

26.15 Wash 10 lks.wide 2 ft.deep course S.60°E.

95 ft. below top of spur,thence ascend along S.slope  
of ridge over very rough surface.

40.00 Set an iron post 3 ft.long 1 in.dia.26 ins.in the ground

for 1/4 sec.cor.marked on brass cap 1/4 S 25 on W.half  
and S 30 on E.half,from which

A pine 8 ins.dia.brs.N.29°40'W.22 lks.dist.  
marked 1/4 S.25 B.T.and

A pine 8 ins.dia.brs.N.73°30'E.21 lks.dist.  
marked 1/4 S.30 B.T.

225 ft. above wash.

After diligent search I am unable to find any trace of  
old 1/4 sec.cor.

October 18,1910.

October 19,At 9h.00m.a.m.l.m.t.,I set off 38°06' on the  
lat.arc,and 9°48'S.on the decl.arc and determine a  
meridian with the solar at the 1/4 sec.cor.bet.secs.  
25 and 30, and continue my line north bet. these secs.

43.50 Top of ridge brs.E.and W. 25 ft.above 1/4 sec.cor.  
Descend.

52.10 Bottom of depression drains N.45°E.

80 ft.below top of ridge,ascend.

60.00 Top of spur projects N.60°E.about 5 chs.

Resurvey of the E. Bdy. of T. 31 S., R. 17 W.

chains

22 ft. above bottom of depression. Descend.

72.00 Wash 5 lks. wide 2 ft. deep course N. 60° W.

95 ft. below top of spur. Ascend

77.50 Top of spur, projects N. 45° W. about 8 chs.

10 ft. above wash, descend slightly.

80.00 Set an iron post 3 ft. long 3 ins. dia. 24 ins. in the ground for cor. of secs. 19, 24, 25 and 30, marked on brass cap

T 31 S. on N. half

R 17 W S. 24 on N.W.

R 16 W S. 19 on N.E.

S 30 on S.E. and

S 25 on S.W. quadrant, ; from which

A pine 14 ins. dia. brs. N. 40° 10' E. 64 lks. dist.

marked T. 31 S. R. 16 W. S. 19 B. T.

A pine 12 ins. dia. brs. N. 21° 15' W. 65 lks. dist.

marked T. 31 S. R. 17 W. S. 24 B. T.

A pine 8 ins. dia. brs. S. 15° 25' W. 50 lks. dist.

marked T. 31 S. R. 17 W. S. 25 B. T.

A pine 6 ins. dia. brs. S. 51° 35' E. 15 lks. dist.

marked T. 31 S. R. 16 W. S. 30 B. T.

5 ft. below top of spur.

After diligent search I was unable to find any trace of old cor.

Land, mountainous.

Soil, clay, loam, stony 4th. rate.

Timber, cedar and pine.

Mountainous or heavily timbered land on 80.00 chs.

North on true resurvey line bet. secs. 19 and 24.

Over slightly descending rolling land.

Through cedar and pine timber.

Resurvey of the E. bdy. of T. 31 S., R. 17 W.

Chains

- 40.00 Set an iron post 3 ft. long 1 in. dia. 26 ins. in the ground for 1/4 sec. cor. marked on brass cap 1/4 S. 24 on W. half and S 19 on E. half, from which
- A pine 12 ins. dia. brs. S. 38°45' E. 96 lks. dist. marked 1/4 S. 19 B.T.
- A pine 6 ins. dia. brs. N. 74°30' W. 17 lks. dist. marked 1/4 S. 24 B.T.
- 230 ft. below the sec. cor.
- After diligent search, I was unable to find any trace of the old 1/4 sec. cor.
- The sky is overcast and solar observations are impossible.
- 41.10 Wash 10 lks. wide, 2 ft. deep, course N. 60° E.  
5 ft. below 1/4 sec. cor. Thence over nearly level line.
- 46.10 Wash 10 lks. wide, 3 ft. deep, course E. Ascend.
- 60.00 Top of spur, projects N. 60° W. about 15 chs.  
125 ft. above wash, thence descend slightly.
- 74.00 Old wagon road, brs. E. and W.
- 75.80 Wash 15 lks. wide 3 ft. deep, course E.  
65 ft. below top of spur. Ascend.
- 80.00 Set an iron post 3 ft. long 3 ins. dia. 24 ins. in the ground for cor of secs. 13, 18, 19 and 24, marked on brass cap
- T 31 S on N. half  
R 17 W. S. 13 on N. W.  
R 16 W S 18 on N. E.  
S 19 on S. E. and  
S 24 on S. W. quadrant, ; from which
- A cedar 10 ins. dia. brs. N. 17° W. 83 lks. dist. marked T. 31 S. R. 17 W. S. 13 B. T.
- A cedar 10 ins. dia. brs. N. 32°45' E. 1.16 chs. dist. marked T. 31 S. R. 16 W. S. 18 B. T.
- A cedar 6 ins. dia. brs. S. 35°50' E. 50 lks. dist. marked T. 31 S. R. 16 W. S. 19 B. T. and
- A cedar 10 ins. dia. brs. S. 27°30' W. 42 lks. dist. marked T. 31 S. R. 17 W. S. 24 B. T.

Resurvey of the E.Bdy.of T.31 S.,R.17 W.

Chains

This cor.stands on top of a spur,bearing S.80°E.about 5 chs. and is 32 ft. above wash.

After diligent search I was unable to find any trace of the old sec.cor.

Land,hilly and rolling.

Soil,loam and stony 4th.rate.

Timber,cedar and pine .

Undergrowth,scattering sage brush and scant growth of bunch grass.

Heavily timbered land 80.00 chs.

North on true resurvey line bet.secs.13 and 18.

Over descending,rolling land.

Through cedar and pine timber.

1.50 Wash 8 lks.wide 2 ft.deep course E.  
18 ft.below sec.cor. Ascend..

7.00 Top of spur projects E.about 8 chs.  
42 ft. above wash, descend.

19.50 Bottom of depression,drains E..  
18 ft.below top of spur, ascend.

23.00 Top of spur brs.. E.and W. .  
40 ft. above depression,descend.

25.80 Wash 12 lks.wide,2 ft.deep course E.  
14 ft.below top of spur,ascend..

30.60 Top of ridge brs.E.and W.20 ft.above wash,Descend.

40.00 Set an iron post 3 ft.long 1 in.dia.26 ins.in the ground for 1/4 sec.cor.marked on brass cap 1/4 S 13 on W.half and S 18 on E.half from which

A pine 8 ins.dia.brs.S.36°30'W.93 lks.dist.  
marked 1/4 S 13 B.T.✓

A pine 10 ins.dia.brs.N.75°40'E.41 lks.dist.  
marked 1/4 S.18 B.T.✓

25 ft. below top of ridge.

Chains

After making diligent search for the old 1/4 sec. cor. I was unable to find any trace of it.

October 19, 1910.

October 20, At 8h. 30m. a.m. l.m.t., I set off 38°07' on the lat. arc, and 10°09' S. on the decl. arc, and determine a meridian at the 1/4 sec. cor. bet. secs. 13 and 18.

Thence I continue,

North bet. secs. 13 and 18,

60.60 Wagon road from Lund to Pioche Nevada, brs. N. 80°W. & S. 80°E.

63.70 Wash 20 lks. wide, 3 ft. deep course S. 75°E.

65 ft. below 1/4 sec. cor. Ascend

68.00 Top of steep ascent to bench brs. S. 80°E. and N. 80° W.

100 ft. above wash, thence slight ascent.

73.00 Top of bench brs. E. and W. 17 ft. above steep ascent.

Thence descend slightly.

80.00 Set an iron post 3 ft. long 3 ins. dia. 24 ins. in the ground for cor. of secs. 7, 12, 13, and 18, marked on brass cap

T 31 S on N. half

R 17 W S 12 on N.W.

R 16 W S 7 on N.E.

S 18 on S.E. and

S 13 on S.W. quadrant, ; from which

A pine 14 ins. dia. brs. N. 10°25' E. 73 lks. dist. marked T. 31 S. R. 16 W. S. 7 B. T.

A cedar 10 ins. dia. brs. N. 15°45' W. 12 lks. dist. marked T. 31 S. R. 17 W. S. 12 B. T.

A pine 12 ins. dia. brs. S. 65°12' W. 78 lks. dist. marked T. 31 S. R. 17 W. S. 13 B. T. and

A pine 10 ins. dia. brs. S. 67°45' E. 12 lks. dist. marked T. 31 S. R. 16 W. S. 18 B. T.

25 ft. below top of bench.

After making diligent search for the old sec. cor. I was unable to find any trace of it.

Land, rolling, with general slope easterly.

Soil, gravel, clay and stony 4th. rate.

Resurvey of the E. bdy. of T. 31 S., R. 17 W.

Chains

Timber, cedar and pine.

Undergrowth, scattering sage brush and scant growth of bunch grass.

North on true resurvey line bet. secs. 7 and 12.

Over slightly descending rolling land.

Through cedar and pine timber.

24.00 Bottom of descent brs. S. 50° E. 22 ft. below sec. cor. Ascend.

40.00 Set an iron post 3 ft. long 1 in. dia. 18 ins. in the ground to cemented gravel, in a mound of earth and stone 2 ft. base 8 ins. high for 1/4 sec. cor. marked on brass cap 1/4 S 12 on W. half and S 7 on E. half, from which

A cedar 14 ins. dia. brs. S. 79° 20' E. 92 lks. dist, marked 1/4 S. 7 B.T. and ✓

A cedar 12 ins. dia. brs. S. 77° 30' W. 40 lks. dist. marked 1/4 S. 12 B.T. ✓

52 ft. above bottom of descent.

After making diligent search for the old 1/4 sec. cor. I was unable to find any trace of it. ✓

October 20, At this cor. I set off 10° 13' S. on the decl. arc, and at 11h. 45m. a.m. l.m.t., observe the sun on the meridian, the resulting lat. is 38° 08'. ✓

This 1/4 sec. cor. is at top of ascent, thence descend slightly.

52.30 Wash 10 lks. wide 2 ft. deep course N. 60° E.

22 ft. below 1/4 sec. cor. Thence ascend slightly.

65.70 Wash 12 lks. wide 2 ft. deep course E.

80.00 Set an iron post 3 ft. long 3 ins. dia. 24 ins. in the ground for cor. of secs. 1, 6, 7, and 12, marked on brass cap,

T 31 S. on N. half

R 17 W. S. 1 on N.W.

R 16 W S 6 on N.E.

S 7 on S.E. and

S 12 on S.W. quadrant,; from which

Resurvey of the E. Bdy. of T. 31 S., R. 17 W.

Chains

- A pine 8 ins. dia. brs. N. 10° 30' W. 42 lks. dist. marked T. 31 S. R. 17 W. S. 1 B. T.
- A pine 12 ins. dia. brs. N. 37° 35' E. 1.03 chs. dist. marked T. 31 S. R. 16 W. S. 6 B. T.
- A pine 8 ins. dia. brs. S. 26° 55' E' 13 lks. dist. marked T. 31 S. R. 16 W. S. 7 B. T. and
- A pine 10 ins. dia. brs. S. 56° 30' W. 1.00 ch. dist. marked T. 31 S. R. 17 W. S. 12 B. T.

This cor. is 18 ft. above wash.

After making diligent search for the old sec. cor. I was unable to find any trace of it.

Land, rolling, with general slope easterly.

Soil, gravelly loam with cemented clay subsoil, 4th. rate.

Timber, cedar and pine.

Undergrowth, scattering sage brush, and scant growth of bunch grass.

North on true resurvey line bet. secs. 1 and 6.

Over slightly descending land.

Through cedar and pine timber.

1.95 Wash 15 lks. wide 2 ft. deep course S. 60° E.

5 ft. below sec. cor. Ascend.

8.00 Top of ascent brs. E. and W. 17 ft. above wash, Descend.

36.00 Wash 75 lks. wide 2 ft. deep course E.

75 ft. below top of ascent. Ascend.

40.00 Set an iron post 3 ft. long 1 in. dia. 26 ins. in the ground for 1/4 sec. cor. marked on brass cap 1/4 S. 1 on W. half, and S. 6 on E. half, from which,

A cedar 10 ins. dia, brs. N. 81° W. 37 lks. dist. marked 1/4 S. 1 B. T. and

A cedar 10 ins. dia. brs. S. 82° 15' E. 82 lks. dist. marked 1/4 S. 6 B. T.

Resurvey of the E. Bdy. of T. 31 S., R. 17 W.

Chains.  
111.03

Intersect Sixth Standard Parallel South 8.69 chs. W. of the standard cor. of Tp. 30 S., Rs. 16 and 17 W., which is an iron post 3 ins. dia., 12 ins. above ground, mkd. and witnessed as described by the surveyor general. Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, for closing cor. of T. 31 S., Rs. 16 and 17 W. mkd. on brass cap,

T 30 S in N. half,

R 17 W S 36 in NW.

R 16 W S 31 in NE.

C C T 31 S in S. half,

S 6 R 16 W in SE.

S 1 R 17 W in SW. quadrants; from which

A cedar 12 ins. dia. bears S. 54° 55' W. 75 lks. dist.

mkd. C C T 31 S R 17 W S 1 B T

A cedar 8 ins. dia. bears S. 19° 15' E. 32 lks. dist.

mkd. C C T 31 S R 16 W S 6 B T

Land, rolling, with general slope easterly.

Soil, gravelly clay loam; 2d rate.

Timber, cedar and pine.

Undergrowth, sagebrush and scant growth of bunch grass.

Dec. 6, 1910.

*Ralph Gentry*  
Instrumentman G.L.O.

Boundaries of T.31 S., R.17 W.

Latitudes, Departures, and Closing Errors.						
Lines Designated	True Bearing	Dist. chs.	Latitudes		Departures	
			N. chs.	S. chs.	E. chs.	W. chs.
South Boundary	N:89°53'W.	791.77	116			79.77
South Boundary	N:89°54'W.	160.00	28			160.00
South Boundary	N:89°52'W.	82.54	19			82.54
South Boundary	N:89°54'W.	164.71	29			164.71
3d Auxiliary G.M. North		510.23		510.23		
Sixth Stand. Par. S. East		485.18				485.18
East Boundary	South	511.03		511.03		
Convergency						1.57
Total			511.15	511.03	485.75	487.02
			511.03			485.75
Errors in lat. and dep.						1.27

Subdivision of T. 31 S., R. 17 W.

Survey commenced October 16, 1910, and executed with a W. & L. E. Gurley, explorers transit No.-, with solar attachment.

The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct, and was approved by the surveyor general for Utah August 25, 1910.

I examine the adjustments of the transit, find them correct, then, to test the solar apparatus, by comparing its indications resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At camp, which is located in the NE. quarter of sec. 19, T. 31 S., R. 17 W., latitude  $38^{\circ} 07' N.$ , longitude  $113^{\circ} 44' W.$ , I set up over stake set by Mr. Collier Oct. 10, 1910, which is on true meridian, established by Mr. R. E. L. Collier, Oct. 10, 1910, by observations on Polaris, and at 9h 46m a.m., l.m.t., I set off  $38^{\circ} 06'$  on the latitude arc,  $8^{\circ} 43' 30'' S.$  on the decl. arc; and determine with the solar a meridian and mark a point thereof on a stake set by Mr. R. E. L. Collier, Oct. 10, 1910, by driving a nail which falls 0.1 ins. east of mark determined by the Polaris observation.

At 2h 46m p.m., l.m.t., I set off  $38^{\circ} 06'$  on the lat. arc,  $8^{\circ} 48' S.$  on the decl. arc; and mark a point in the meridian determined with the solar by driving a nail, in the stake already set 5 chs. N. of my station, this mark falls 0.2 ins. W. of line established by the Polaris observation.

The solar apparatus by a.m. and p.m. observations, de-

SUBDIVISION OF T. 31 S., R.17 W.

Chains

finds positions for meridians, respectively about 0' 05" east and 0'10" west of the meridian established by Polaris observations; therefore, I conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the true meridian, at 3h 30m. p.m., is N.16°30'W.; the angle thus determined gives the mag. decl. 16°30'E.

Oct. 16, 1910.

Oct. 18: At 9h 45m a.m., l.m.t., I set off 38°04' on the lat. arc; 9°25'S. on the decl. arc; and determine a meridian with the solar at the cor. of Tps. 31 and 32 S., Rs. 16 and 17 W., heretofore described.

Thence I retrace

N.89°54'W. on S. bdy. of sec. 36.

39.87 Fall 1 lk. N. of 1/4 sec. cor.

Oct. 18: At this cor. I set off 9°30'S. on the decl. arc, and at 11h 45m a.m., l.m.t., I observe the sun on the meridian; the resulting lat. is 38°04'.

79.77 Fall 3 lks. S. of cor. of secs. 1, 2, 35 and 36, consequently the S. bdy. of sec. 36 bears N.89°53'W.

I commence at the cor. of secs. 1, 2, 35 and 36 on the S. bdy. of the Tp., which is a quartzite 10x10x4 ins. above the ground, firmly set, and marked and witnessed as described by the surveyor general.

Thence I run

N.0°01'W., bet. secs. 35 and 36.

Over rough mountainous land; through dense timber, and scattering undergrowth of sagebrush, and grass.

Desc. into ravine.

6.00 Bottom of ravine, 20 lks. wide, 3 ft. deep, 90 ft. below sec. cor., drains N.60°E.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

- Asc. spur.
- 16.00 Top of spur, 80 ft. above ravine, bears E. and W.  
Desc.
- 29.00 Timber becomes scattering, bears E. and W.
- 32.00 Wash, at foot of spur, 175 ft. below top, 10 lks. wide,  
2 ft. deep, drain E.; thence asc. gradually.
- 37.00 Outcropping of sandstone rock, bears E. and W.
- 39.00 Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in  
the ground, on rock, and raise a mound of stone around  
post for WC to  $\frac{1}{4}$  sec. cor. bet. secs. 25 and 36,  
marked on brass cap  
T 31 S S 35 W C  $\frac{1}{4}$  on W. half, and  
R 17 W S 36 on E. half; from which  
A pine 8 ins. dia. bears N.50°30'W. 1.02 chs.  
dist., marked W C  $\frac{1}{4}$  S 35 B T.  
A pine 6 ins. dia. bears N.26°35'E. 78 lks.  
dist., marked W C  $\frac{1}{4}$  S 36 B T.
- 40.00 Point for  $\frac{1}{4}$  sec. cor. falls on solid rock, impossible  
to set iron post. Mark a cross (x) at point, and  $\frac{1}{4}$   
on W. side, raise a mound of stone, 2 $\frac{1}{2}$  ft. base, 2  
ft. high, W. of point for  $\frac{1}{4}$  cor.  
Oct. 18, 1910.  
Oct. 19: At 9h 15m a.m., l.m.t., I set off 38°04' on  
the lat. arc; 9°48'30"S. on the decl. arc; and deter-  
mine a meridian with the solar at the  $\frac{1}{4}$  sec. cor. bet.  
secs. 35 and 36.  
Thence I run  
N.0°01'W., bet. secs. 35 and 36.  
Over nearly level land, through timber, and scattering  
undergrowth of sagebrush and grass.
- 45.55 Wash, 8 lks. wide, 2 ft. deep, drains SE.  
Asc. spur.
- 74.00 Top of spur, 275 ft. above wash, bears S.10°E. and  
N.10°W.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

Desc. spur, along E. slope.

80.00

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for the cor. of secs. 25, 26, 35 and 36, marked on brass cap

T 31 S S 26 in NW.,

R 17 W S 25 in NE.,

S 36 in SE., and

S 35 in SW. quadrants; from which

A pine 6 ins. dia. bears N.4°15'W. 10 lks.

dist., marked T 31 S R 17 W S 26 B T.

A pine 8 ins. dia. bears N.9°45'E. 67 lks.

dist., marked T 31 S R 17 W S 25 B T.

A pine 8 ins. dia. bears S.15°E. 19 lks.

dist., marked T 31 S R 17 W S 36 B T.

A cedar 10 ins. dia. bears S.49°40'W. 23 lks.

dist., marked T 31 S R 17 W S 35 B T.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, pinon pine and cedar.

Undergrowth, sagebrush and scattering grass.

Oct. 19: At this cor. I set off 9°51'S. on the decl.

arc; and at 11h 45m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 38°05'.

S.89°53'E. on a random line bet. secs. 25 and 36.

40.00

Set temp.  $\frac{1}{4}$  sec. cor.

79.80

Intersect E. bdy. of Tp. 7 lks. N. of cor. of secs. 25, 30, 31 and 36, heretofore described.

Thence I run

N.89°50'W., on a true line bet. secs. 25 and 36,

Over mountainous land; through dense timber, and scattering undergrowth of sagebrush and bunch grass.

As cending spur, along N. slope of ridge.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains	
9.00	Top of spur, 75 ft. above sec. cor., projects N. about 3 chs.
	Desc.
16.00	Foot of descent, 15 ft. below top of spur, drains N. Asc.
21.50	Top of spur, 75 ft. above foot of descent, bears N. and S.
	Desc.
26.00	Bottom of ravine, 75 ft. below top of spur, 10 lks. wide, 2 ft. deep, drains N. 75°E.
	Asc.
29.00	Top of ridge, 35 ft. above ravine, bears NE. and SW. Desc.
32.00	Wash, 30 ft. below ridge, 6 lks. wide, 3 ft. deep, drains NE.
	Asc. gradually over broken surface.
39.90	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 25 in N. half and S 36 in S. half; from which A pine 6 ins. dia. bears N. 14°45' W. 13 lks. dist., marked $\frac{1}{4}$ S 25 B T. A pine 6 ins. dia. bears S. 23°30' W. 36 lks. dist., marked $\frac{1}{4}$ S 36 B T.
44.00	Foot of mountain, 80 ft. above wash, bears N. and S. Ascend mountain.
59.50	Top of mountain, 350 ft. above foot, bears N. and S. Desc.
77.00	Gulch, 375 ft. below top of mountain, 20 lks. wide, 5 ft. deep, drains S. 10° E.
	Asc.
79.80	The cor. of secs. 25, 26, 35 and 36, which is 75 ft. above gulch. Land, mountainous. Soil, rocky, 4th rate. Timber, cedar and pinon pine.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

Undergrowth, scattering sagebrush and bunch grass. Oct. 19, 1910.

Oct. 20: At 9h 15m a.m., l.m.t., I set off 38°05' on the lat. arc; 10°10'30"S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36.

Thence I run N.0°01'W., bet. secs. 25 and 26,

Over mountainous land; through timber, and scattering undergrowth of sagebrush and bunch grass. Asc. slightly along E. slope of spur.

10.00 Top of ascent, 15 ft. above sec. cor.

Desc.

20.00 Wash, 30 lks. wide, 3 ft. deep, 10 ft. below top of ascent, drains SE.

Asc. mountain.

26.00 Foot of ledges, 200 ft. above wash, bears E. and W.

28.00 Top of ledges, 50 ft. above foot, bears E. and W.

32.00 Top of mountain, 400 ft. above wash, bears N.80°W. and S.80°E.

Desc. mountain.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for 1/4 sec. cor., marked on brass cap 1/4 S 26 in

W. half and S 25 in E. half; from which

A pine 6 ins. dia. bears N.77°25'W. 14 lks. dist., marked 1/4 S 26 B T.

A pine 6 ins. dia. bears S.31°45'E. 18 lks. dist., marked 1/4 S 25 B T.

Cor. stands on N. slope of mountain, 125 ft. below top.

Oct. 20: At this cor. I set off 10°13'S. on the decl. arc, and at 11h 45m a.m., l.m.t., observe the sun on

the meridian; the resulting lat. is 38°05'.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

49.00 Bottom of gulch, 225 ft. below  $\frac{1}{4}$  sec. cor., 20 lks. wide, 4 ft. deep, drains N.75°E.

Asc.

58.00 Top of ascent, 175 ft. above gulch. A peak bears W. 4 chs.

Desc.

65.50 Bottom of gulch, 200 ft. below top, 30 lks. wide, 4 ft. deep, drains E.

Asc.

77.50 Top of peak, 350 ft. above gulch.

Desc.

80.00 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground for cor. of secs. 23, 24, 25 and 26, marked on brass cap

T 31 S S 23 in NW.,

R 17 W S 24 in NE.,

S 25 in SE., and

S 26 in SW. quadrants; from which

A pine 12 ins. dia. bears N.77°05'W. 70 lks. dist., marked T 31 S R 17 W S 23 B T.

A pine 12 ins. dia. bears N.14°45'E. 55 lks. dist., marked T 31 S R 17 W S 24 B T.

A pine 10 ins. dia. bears S.30°20'E. 37 lks. dist., marked T.31 S R 17 W S 25 B T.

A pine 12 ins. dia. bears S.68°30'W. 30 lks. dist., marked T 31 S R 17 W S 26 B T.

Cor. is located on N. slope of peak, 45 ft. below top.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedar and pinon pine.

Undergrowth, scattering sagebrush and bunch grass.

Oct. 20, 1910.

Oct. 21: At 8h 45m a.m., l.m.t., I set off 38°06' on

SUBDIVISION OF T. 31 S.; R. 17 W.

Chains

CHICAGO

- the lat. arc;  $10^{\circ}31'S.$  on the decl. arc; and determine a meridian with the solar at the cor. of secs. 23, 24 and 25 and 26.
- Thence I run  $S.89^{\circ}50'E.$  on a random line bet. secs. 24 and 25.
- 40.00 Set temp.  $\frac{1}{4}$  sec. cor.
- 79.86 Intersect East Bdy. of Tp. 14 lks. S. of cor. of secs. 19, 24, 25 and 30, heretofore described.
- Thence I run  $N.89^{\circ}56'W.$  on a true line bet. secs. 24 and 25, Over mountainous land; through dense timber, and scattering undergrowth of sagebrush, and bunch grass.
- Desc.
- 5.85 Wash, 15 lks. wide, 2 ft. deep, 30 ft. below sec. cor., drains NW.
- Asc. spur.
- 12.00 Small ravine, 1 ch. wide, 15 ft. deep, drains NE.
- 22.50 Top of ridge, 175 ft. above wash, bears N. and S.
- Desc.
- 33.80 Bottom of gulch, 50 lks. wide, 2 ft. deep, 425 ft. below top of spur, drains N.
- Asc.
- 36.00 Top of spur, 30 ft. above bottom of gulch, projects N. 3 chs.
- Desc.
- 38.55 Wash, 20 ft. below spur, 10 lks. wide, 2 ft. deep, drains NE.
- Asc.
- 39.93 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 24 in N. half, and S 25 in S. half; from which A cedar 6 ins. dia. bears  $N.14^{\circ}40'W.$  18 lks. dist., marked  $\frac{1}{4}$  S 24 B T.
- A cedar 10 ins. dia. bears  $S.66^{\circ}30'E.$  24 lks.

SUBDIVISION OF T. 31 S.; R. 17 W.

Chains

entire

the lat. arc; 10°31'S. on the decl. arc; and determine

meridian with the solar at the cor. of secs. 23, 24

25 and 26.

Thence I run

S.89°50'E. on a random line bet. secs. 24 and 25.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

79.86 Intersect East Bdy. of Tp. 14 lks. S. of cor. of secs.

19, 24, 25 and 30, heretofore described.

Thence I run

N.89°56'W. on a true line bet. secs. 24 and 25,

Over mountainous land; through dense timber, and scattering undergrowth of sagebrush, and bunch grass.

Desc.

5.85 Wash, 15 lks. wide, 2 ft. deep, 30 ft. below sec. cor.,

drains NW.

Asc. spur.

12.00 Small ravine, 1 ch. wide, 15 ft. deep, drains NE.

22.50 Top of ridge, 175 ft. above wash, bears N. and S.

Desc.

33.80 Bottom of gulch, 50 lks. wide, 2 ft. deep, 425 ft. below

top of spur, drains N.

Asc.

36.00 Top of spur, 30 ft. above bottom of gulch, projects N.

3 chs.

Desc.

38.55 Wash, 20 ft. below spur, 10 lks. wide, 2 ft. deep, drains

NE.

Asc.

39.93 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the

ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 24 in N. half, and S 25 in S. half; from which

A cedar 6 ins. dia. bears N.14°40'W. 18 lks.

dist., marked  $\frac{1}{4}$  S 24 B T.

A cedar 10 ins. dia. bears S.66°30'E. 24 lks.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

dist., marked  $\frac{1}{4}$  S 25 B.T.

Oct. 21: At this cor. I set off  $10^{\circ}35'S.$  on the decl. arc; and at 11h 45m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is  $38^{\circ}06'$ .

49.00 Top of asc. 30 ft. above wash, bears N. and S.

Thence on nearly level line, over broken surface.

52.00 Foot of peak, bears N. and S.

Asc.

79.86 The cor. of secs. 23, 24, 25 and 26, which is 425 ft.

above foot.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedar and pinon pine.

Undergrowth, scattering sagebrush and bunch grass.

Oct. 21, 1910.

Oct. 22: At 8h 45m a.m., l.m.t., I set off  $38^{\circ}06'$  on the lat. arc;  $10^{\circ}53'S.$  on the decl. arc; and determine a meridian with the solar at the cor. of secs. 23, 24, 25 and 26.

Thence I run

$N.0^{\circ}01'W.$  bet. secs. 23 and 24,

Over mountainous land, through dense timber and scattering sagebrush, and bunch grass.

Desc. over N. slope of peak.

14.00 Bottom of gulch, 20 lks. wide, 4 ft. deep, 350 ft. below

sec. cor., drains E.

Asc.

32.00 Top of ascent on E. side of peak, which bears W. 4 chs.

dist., 300 ft. above gulch.

Desc.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap

$\frac{1}{4}$  S 23 in W. half and S 24 in E. half; from which

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

A pine 12 ins. dia. bears N.67°35'W. 88 lks. dist., marked  $\frac{1}{4}$  S 23 B T.

A cedar 6 ins. dia. bears N.55°30'E. 9 lks. dist., marked  $\frac{1}{4}$  S 24 B T.

Oct. 22: I set off 10°56'S. on the decl. arc; and at 11h 45m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 38°06'.

44.00 Saddle, bet. two peaks, 140 ft. below top of ascent, bears NE. and SW.

62.00 Foot of descent, 50 ft. below saddle, drains W. Asc.

63.00 Top of ascent, 15 ft. above foot, bears E. and W. Desc.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 13, 14, 23 and 24, marked on brass cap

T 31 S S 14 in NW.

R 17 W S 13 in NE.

S 24 in SE., and

S 23 in SW. quadrants; from which

A pine 6 ins. in dia. bears N.51°30'W. 1.07 chs. dist., marked T 31 S R 17 W S 14 B T.

A cedar 10 ins. in dia. bears N.40°10'E. 36 lks. dist., marked T 31 S R 17 W S 13 B T.

A cedar 10 ins. dia. bears S.56°15'E. 17 lks. dist., marked T 31 S R 17 W S 24 B T.

A pine 10 ins. dia. bears S.22°20'W. 61 lks. dist., marked T 31 S R 17 W S 23 B T.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedar and pinon pine.

Undergrowth, scattering sagebrush and bunch grass.

Oct. 22, 1910.

*Ralph Gentry*  
Instrumentman G.L.O.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

This 22nd day of October, 1910, R. Harold Browne, rear chainman, and Edward N. Thompson, moundman, discontinued work. No other men being available, I put Arnold Low in as rear chainman. No officer authorized to administer oaths, other than myself, being available without great inconvenience, delay and expense, I administer the required preliminary and final oaths.

Survey commenced Oct. 23, 1910, and executed with a W. and L. E. Gurley Explorer's transit No.-, with solar attachment. The horizontal limb is provided with two double verniers, placed opposite to each other reading to single minutes of arc; which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake City, found correct and was approved by the surveyor general for Utah, August 25, 1910.

I examine the adjustments of the transit, find them correct; then, to test the solar apparatus by comparing its indications, resulting from solar observations, made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At 5h 21m a.m. by my watch, which is correct for l.m.t., at camp, in the SE. quarter of sec. 16, latitude  $38^{\circ} 07'$  N., longitude  $113^{\circ} 42'$  W., I observe Polaris at western elongation in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground 5 chs. N. of my station.

Subdivision of T. 31 S., R. 17 W.

Chains

At 8h a.m., l.m.t., I lay off the azimuth of Polaris  $1^{\circ} 29'$  to the east, and mark the meridian thus determined by driving a nail in a stake, firmly set 5 chs. N. of my station.

At 9h 45m a.m., l.m.t., I set off  $38^{\circ}07'$  on the lat. arc;  $11^{\circ}15'S.$  on the decl. arc; and mark a point in the meridian determined with the solar, on the stake already set 5 chs. N. of my station; this mark falls 0.1 ins. west of the meridian established by the Polaris observation.

At 11h 45m a.m., l.m.t., I lay off  $11^{\circ}17'S.$  on the decl. arc; and observe the sun on the meridian, the resulting lat. is  $38^{\circ}07'$ ;

At 1h 45m p.m., l.m.t., I set off  $38^{\circ}07'$  on the lat. arc;  $11^{\circ}19'S.$  on the decl. arc; and mark a point in the meridian determined with the solar on the stake already set 5 chs. N. of my station; this mark falls 0.2 ins. east of the meridian established by the Polaris observation.

The solar apparatus by a.m. and p.m. observations, defines positions for meridians, respectively about  $0'05''$  west and  $0'10''$  east of the meridian established by the Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 2h 30m p.m. is  $N.16^{\circ}30'W.$ , the angle thus determined gives the mag. decl.  $16^{\circ}30'E.$

Oct. 23, 1910.

*Robert E. R. Collins*  
Instrumentman G.L.O.

Oct. 24: At 7h 44m a.m., l.m.t., I set off  $38^{\circ}07'$  on

Subdivision of T. 31 S., R. 17 W.

Chains

the lat. arc;  $11^{\circ}33'S$ . on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 13, 14 23 and 24.

Thence I run

$S.89^{\circ}56'E$ . on a random line bet. secs. 13 and 24.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

79.78 Intersect East Bdy. of Tp. 4 lks. S. of cor. of secs. 13, 18, 19 and 24, heretofore described.

Thence I run

$N.89^{\circ}58'W$ . on a true line bet. secs. 13 and 24,

Over rolling land; through dense timber and scattering sagebrush and bunch grass.

24.00 Descent bears NW. and SE.

33.00 Foot of descent, 40 ft. below top, drains SW.

Asc.

39.89 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 13 in N. half and S 24 in S. half; from which

A pine 6 ins. dia., bears  $N.8^{\circ}15'E$ , 57 lks. dist., marked  $\frac{1}{4}$  S 13 B T

A pine 8 ins. dia., bears  $S.53^{\circ}40'W$ , 10 lks. dist., marked  $\frac{1}{4}$  S 24 B T

Oct. 24: At this cor. I set off  $11^{\circ}38'S$ . on the decl. arc, and at 11h 44m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is  $38^{\circ}07'$ .

44.00 Top of spur, 55 ft. above foot of ascent, bears NW. and SE.

Desc.

49.00 Foot of descent, 45 ft. below top, bears NW. and SE. Thence over rolling land.

50.25 Old wagon road, bears NW. and SE.

55.00 Wash, 20 lks. wide, 1 ft. deep, drains SE.

Asc. gradually.

75.00 Top of ascent, 125 ft. above wash, bears N. and S.

Desc.

Subdivision of T. 31 S., R. 17 W.

Chains

79.78

The cor. of secs. 13, 14, 23 and 24.  
 Land, rolling and hilly.  
 Soil, gravelly loam, 6 to 8 ins. deep on a subsoil of  
 cemented gravel, 2nd and 3rd rate.  
 Timber, cedars and pinon pine.  
 Undergrowth, of scattering sagebrush and bunch grass.  
 Oct. 24, 1910.

Oct. 25: At 8h 44m a.m.l.m.t., I set off 38°07' on the  
 lat. arc; 11°56'S. on the decl. arc; and determine a  
 meridian with the solar at the cor. of secs. 13, 14,  
 23 and 24.

Thence I run

N.0°01'W. bet. secs. 13 and 14.

Over rolling land; through dense timber and scattering  
 undergrowth of sagebrush and grass.

Descend.

1.00

Wash, 6 lks. wide, 1 ft. deep, 5 ft. below the sec. cor.  
 drains NE.

Ascend gradually.

5.00

Top of spur, 15 ft. above wash, projects E.

Descend slightly.

19.60

Wash, 6 lks. wide, 2 ft. deep, 20 ft. below spur, drains  
 E.

Thence on nearly level land.

20.80

Old wagon road, brs. E. & W.

21.85

Wash, 8 lks. wide, 1 ft. deep, drains E.

Ascend ridge.

26.00

Top of ridge, 80 ft. above wash, brs. SE. and NW.

Descend slightly.

40.00

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in  
 the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{2}$  S 14  
 in W. half and S 13 in E. half; from which

A pine, 10 ins. in dia., brs. S. 31°45' W., 39

lks. dist., marked  $\frac{1}{4}$  S 14 B T

Subdivision of T. 31 S., R. 17 W.

Chains

A pine, 12 ins. dia., brs. N. 31° 55' E., 47

lks. dist., marked  $\frac{1}{4}$  S 13 B T

Oct. 25: At this cor. I set off 11° 59' S. on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 38° 07'.

56.57 Wash, 6 lks. wide, 1 ft. deep, 40 ft. below top of ridge, drains NE.

Ascend, gently.

60.00 Abrupt ascent, brs. NE. and SW.

64.00 Top of rolling ridge, 35 ft. above wash, brs. E. and W. Descend slightly.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 11, 12, 13 and 14, marked on brass cap

T 31 S S 11 in NW

R 17 W S 12 in NE

S 13 in SE. and

S 14 in SW. quadrants; from which

A cedar, 6 ins. in dia., brs. N. 18° 30' W., 78

lks. dist., marked T 31 S R 17 W S 11 B T

A cedar, 6 ins. in dia., brs. N. 58° 30' E., 41

lks. dist., marked T 31 S R 17 W S 12 B T

A pine, 6 ins. in dia., brs. S. 70° 30' E., 76

lks. dist., marked T 31 S R 17 W S 13 B T

A cedar, 6 ins. in dia., brs. S. 72° 15' W., 30

lks. dist., marked T 31 S R 17 W S 14 B T

Land, rolling hills.

Soil, gravelly loam, 6 to 8 ins. deep, on a subsoil of cemented clay, 2nd and 3rd rates.

Timber, cedars and pinon pine.

Undergrowth of scattering sagebrush and grass.

Oct. 25, 1910.

Oct. 26: At 8h 44m a.m., l.m.t., I set off 38° 08' on the lat. arc, 12° 16' 30" S. on the decl. arc; and de-

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

termine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14.

Thence I run

S. 89°58'E. on a random line bet. secs. 12 and 13.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

79.86 Intersect N. and S. line 5 lks. S. of cor. of secs. 7, 12, 13 and 18, heretofore described on E. bdy. of Tp.

Thence I run

S. 89°59'W. on a true line bet. secs. 12 and 13.

Over rolling land, through dense timber and scattering undergrowth of sagebrush and grass.

19.00 Abrupt descent, brs. NW. and SE.

21.60 Wash, 16 lks. wide, 2 ft. deep, 60 ft. below top of descent, drains SE.

Thence over rolling land.

27.85 Wagon road, brs. NW. and SE.

28.85 Wash, 25 lks. wide, 4 ft. deep, drains SE.

31.85 Recross wash, drains from SW.

39.93 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 12 in N. half and S 13 in S. half; from which

A pine, 12 ins. in dia., brs. N. 56°E.,

84 lks. dist., marked  $\frac{1}{4}$  S 12 B T.

A cedar, 10 ins. in dia., brs. S. 19°W.,

1.23 chs. dist., marked  $\frac{1}{4}$  S 13 B T.

Oct. 26: At this cor. I set off 12°19'30"S. on the decl. arc. and at 11h 44m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37°08'.

63.85 Wash, 4 lks. wide, 1 ft. deep, drains NE.

67.00 S. side of wagon road, bearing E. and W.

79.86 The cor. of secs. 11, 12, 13 and 14.

Land, rolling.

Soil, gravelly loam, 6 to 8 ins. deep on a subsoil of cemented clay and rocky, 3rd and 4th rates.

Timber, dense cedars and pinon pine.

Chains

Undergrowth, scattering sagebrush and grass.

Oct. 26, 1910.

Oct. 27: At 8h 44m a.m., l.m.t., I set off 38°08' on the lat. arc. 13°37'S. on the decl. arc. and determine a meridian with the solar at the cor. of secs. 11, 12, 13 and 14.

Thence I run

N. 0°01'W. bet. secs. 11 and 12.

Over low rolling hills; through dense timber and scattering undergrowth of sagebrush and grass.

Descend slightly.

1.82 Wagon road, bra. E. and W.

Descend.

11.30 Wash, 18 lks. wide, 3 ft. deep, 10 ft. below sec. cor., drains E.

Ascend.

14.00 Leave undergrowth of sagebrush, bra. E. and W.

18.00 Top of ridge, 50 ft. above wash, bra. E. and W.

Descend slightly.

24.00 Foot of descent, 10 ft. below top, bra. E.

Ascend slightly.

31.00 Top of low ridge, 15 ft. above foot, bra. NE. and SW.

Descend slightly.

38.00 Wash, 6 lks. wide, 1 ft. deep, 20 ft. below top of ridge, drains E.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for  $\frac{1}{2}$  sec. cor.; marked on brass cap  $\frac{1}{2}$  S 11 in W. half, and S. 12 in E. half, from which

A cedar, 8 ins. in dia., bra. S. 65°15'W.,

36 lks. dist., marked  $\frac{1}{2}$  S 11 B T.

A cedar, 8 ins. in dia., bra. S. 28°E.,

26 lks. dist., marked  $\frac{1}{2}$  S 12 B T.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

Oct. 27: At this cor. I set off 12°40'S. on the decl. arc. and at 11h 44m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37°08'.

43.00 Top of ridge, 20 ft. above wash, brs. E. and W.  
Descend slightly.

50.00 Wash, 9 lks. wide, 1 ft. deep, 20 ft. below top of ridge, drains E.  
Ascend slightly.

59.00 Top of ascent, 65 ft. above wash, brs. E. and W.  
Descend slightly.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 1, 2, 11 and 12, marked on brass cap

T 31 S S 2 in NW.

R 17 W S 1 in NE.

S 12 in SE. and

S 11 in SW. quadrants; from which

A cedar, 10 ins. in dia., brs. N. 9°15'W.,  
80 lks. dist., marked T 31 S R 17 W S 2 B T.

A cedar, 8 ins. in dia., brs. N. 22°40'E.,  
1.11 chs. dist., marked T 31 S R 17 W S 1 B T.

A cedar, 8 ins. in dia., brs. S. 45°E.,  
139 lks. dist., marked T 31 S R 17 W S 12 B T.

A cedar, 10 ins. in dia., brs. S. 44°W.,  
29 lks. dist., marked T 31 S R 17 W S 11 B T.

Land, low rolling ridges.

Soil, gravelly loam, 6 to 8 ins. deep on a subsoil of cemented clay and gravel, 2nd and 3rd rates.

Timber, cedars and pinon pine.

Undergrowth, slight growth of sagebrush and grass.

Oct. 27, 1910.

Oct. 28: At 8h 44m a.m., l.m.t., I set off 38°09' on the lat. arc. 12°57'S. on the decl. arc. and determine a meridian with the solar at the cor. of secs. 1, 2, 11

SUBDIVISION OF T. 31 S., R. 17 W.

Chains  
 and 12.  
 Thence I run  
 N. 89°59'E. on a random line bet. secs. 1 and 12.  
 40.00 Set temp.  $\frac{1}{4}$  sec. cor.  
 79.84 Intersect East bdy. of Tp. 18 lks. S. of cor. of secs.  
 1, 6, 7 and 12, heretofore described.  
 Thence I run  
 S. 89°52'W. on a true line bet. secs. 1 and 12.  
 Over rolling land, through dense timber.  
 24.00 Enter scattering undergrowth of sagebrush and grass,  
 . brs. N. and S.  
 39.92 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the  
 ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 1 in  
 N. half and S 12 in S. half, from which  
 A pine, 8 ins. in dia., brs. N. 26°10'E.,  
 71 lks. dist., marked  $\frac{1}{4}$  S 1 B T.  
 A pine, 6 ins. in dia., brs. S. 37°45'W.,  
 83 lks. dist., marked  $\frac{1}{4}$  S 12 B T.  
 Oct. 28: At this cor. I set off 13°00'S. on the decl.  
 arc. and at 11h 44m a.m., l.m.t., observe the sun on the  
 meridian, the resulting lat. is 38°09'.  
 52.10 Wash, 18 lks. wide, 2 ft. deep, drains N. 30°E.  
 Ascend slightly.  
 60.00 Top of ascent, 10 ft. above wash, brs. NE. and SW.  
 Descend.  
 70.30 Wash, 15 lks. wide, 1 ft. deep, 20 ft. below top of  
 ascend, drains NE.  
 Ascend.  
 79.84 The cor. of secs. 1, 2, 11 and 12.  
 Land, rolling.  
 Soil, gravelly loam, 6 to 8 ins. deep on a subsoil of  
 cemented clay, 2nd and 3rd rate.  
 Timber, cedars and pinon pine.  
 Undergrowth of scattering sagebrush and grass.  
 Oct. 28, 1910.

## SUBDIVISION OF T. 31 S., R. 17 W.

## Chains

- Nov. 4: At 8h 44m a.m., l.m.t., I set off  $38^{\circ}09'$  on the lat. arc.  $15^{\circ}13'S$ . on the decl. arc; and determine a meridian with the solar at the cor. of secs. 1, 2, 11 and 12.
- Thence I run  
N.  $0^{\circ}01'W$ . bet. secs. 1 and 2.  
Over rolling land, through dense timber.  
Descend slightly from cor.
- 13.50 Bottom of depression, 45 ft. below sec. cor., drains E.  
Ascend.
- 17.00 Top of ascent, 30 ft. above depression, brs. E. and W.  
Descend.
- 21.50 Leave timber, brs. NE. and SW. enter undergrowth of sagebrush.
- 27.00 Wash, 25 lks. wide, 3 ft. deep, 35 ft. below top of ascent, drains E.  
Ascend.
- 29.00 Leave undergrowth of sagebrush and enter dense timber, brs. E. and W.
- 33.50 Top of spur, 40 ft. above wash, brs. E.  
Descend.
- 34.90 Wash, 5 lks. wide, 1 ft. deep, 10 ft. below top of spur, drains SE.  
Ascend.
- 40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 2 in W. half and S 1 in E. half, from which  
A pine, 12 ins. in dia., brs. N.  $66^{\circ}45'W$ ,  
71 lks. dist., marked  $\frac{1}{4}$  S 2 B T.  
A pine, 14 ins. in dia., brs. N.  $47^{\circ}05'E$ ,  
62 lks. dist., marked  $\frac{1}{4}$  S 1 B T.
- Nov. 4: At this cor. I set off  $15^{\circ}16'S$ . on the decl. arc. and at 11h 44m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is  $38^{\circ}09'$ .
- Note; For reasons already given on E. bdy. of this Tp. bet. secs. 1 and 6.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains  
 Dec. 6, 1910: I run this line from the  $\frac{1}{4}$  sec. cor., as follows;

N.  $0^{\circ}01'W.$  bet. secs. 1 and 2.

44.00 Top of ascent, 10 ft. above  $\frac{1}{4}$  sec. cor., brs. E. and W.  
 Descend.

52.00 Wash, 5 lks. wide, 1 ft. deep, 30 ft. below top of ascent,  
 drains N.  $75^{\circ}E.$   
 Ascend.

70.00 Top of ascent, 40 ft. above wash, brs. E. and W.  
 Descend.

88.00 Leave timber, enter undergrowth of sagebrush, brs. NE.  
 and SW.

89.00 Bottom of depression, 45 ft. below top of ascent, drains  
 NE.  
 Ascend.

92.00 Wash, 5 lks. wide, 1 ft. deep, drains NE.  
 95.60 Wash, 5 lks. wide, 1 ft. deep, drains NE.  
 111.43 Intersect Sixth Standard Parallel South 8.89 chs. W. of  
 St. cor. of secs. 35 and 36, heretofore described.  
 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in  
 the ground for closing cor. marked on brass cap  
 C C T 30 S R 17 W S 35 S 36 on N half  
 S 1 in SE. and  
 S 2 in SW. quadrants; from which  
 A pine, 8 ins. in dia., brs. S.  $62^{\circ}45'E.$ ,  
 49 lks. dist., marked C C T 31 S R 17 W S 1 B T.  
 A cedar, 6 ins. in dia., brs. S.  $19^{\circ}W.$ ,  
 54 lks. dist., marked C C T 31 S R 17 W S 2 B T.

Land, rolling.

Soil, gravelly loam, 6 to 8 ins. deep, on a subsoil of  
 cemented clay, 2nd and 3rd rates.

Timber, cedars and pinon pine.

Undergrowth, of sagebrush.

I destroy all traces of old closing cor. previously set.

Subdivision of T.31 S., R.17 W.

Chains.

Dec.6, 1910.

*Ralph Gentry*  
Instrumentman G.L.O.

Oct.24: At 8h 44m a.m.l.m.t., I set off 38°04' on the lat.arc; 11°35'S.on the decl.arc; and determine a meridian with the solar at the cor.of secs.2,3,34, and 35, on the S.bdy.of Tp.31 S., R.17 W., which is an igneous stone 12 x 8 x 6 ins.above the ground, marked and witnessed as described by the surveyor general. Thence I run

N.0°01'W.bet.secs.34 and 35,

Through timber and a scattering undergrowth of sagebrush and grass.

Ascend spur.

2.00 Top of spur, 10 ft.above sec.cor., projects N.75° E. about 8 chs.

Descend.

10.60 Wash, 10 lks.wide, 1 ft.deep, 90 ft.below top of spur, drains S.80° E.

Ascend spur.

16.00 Top of spur, 60 ft.above wash, projects S.60° E., about 12 chs.

Descend.

21.50 Wash, 4 lks.wide, 1 ft.deep, 40 ft.below top of spur, drains S.60° E.

Enter dense timber, brs.E.and W.

Ascend.

26.55 Top of spur, 50 ft.above wash, projects S.75° E. about 15 chs.

Descend.

28.50 Bottom of depression, 15 ft.below top of spur, drains SE. Ascend.

32.00 Top of spur, 40 ft.above depression, projects SE.about

## Subdivision of T.31 S., P.17 W.

Chains	
	. 5 chs.
	Descend.
36.10	Bottom of depression, 25 ft. below top of spur, drains SE.
	Ascend.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 34 on W. half, and S 35 in E. half; from which A pine, 12 ins. in dia., brs. S. 36° 50' W., 24 lks. dist., marked $\frac{1}{4}$ S 24 B T A pine, 6 ins. dia., brs. N. 58° 45' E., 13 lks. dist., marked $\frac{1}{4}$ S 35 B T
43.00	Top of spur, 70 ft. above depression, projects S. 30° E. about 5 chs.
	Descend.
47.00	Wash, 15 lks. wide, 2 ft. deep, 45 ft. below top of spur, drains E.
	Ascend.
65.00	Top of spur, 250 ft. above wash, projects S. 30° E., about 10 chs.
	Descend.
69.00	Bottom of depression, 100 ft. below top of spur, drains E.
	Ascend.
72.00	Top of rocky spur, 65 ft. above depression, projects S. 50° E. 4 chs.
	Descend.
79.75	Bottom of depression, 168 ft. below top of spur, drains E.
	Ascend.
80.00	Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 26, 27, 34, and 35, marked on brass cap T 31 S S 27 in NW. R 17 W S 26 in NE.

Subdivision of T.31 S., R.17 W.

Chains.

S 35 in SE. and

S 34 in SW. quadrants; from which

A cedar, 10 ins. in dia., brs. N.80° 05' W., 45 lks. dist., marked T 31 S R 17 W S 27 B T

A pine, 14 ins. in dia., brs. N.84° E., 68 lks. dist., marked T. 31 S R 17 W S 26 B T

A pine, 26 ins. in dia., brs. S.40° E. 1.07 chs. dist., marked T 31 S R 17 W S 35 B T

A cedar, 10 ins. in dia., brs. S.80°50' W., 94 lks. dist., marked T 31 S R 17 W S 34 B T

Land, mountainous, and rough.

Soil, rocky, 4th rate.

Timber, cedars, pinon pine, and a few scattering long leaf pine.

Undergrowth, scattering sagebrush and grass.

Oct. 24, 1910.

Oct. 25: At 8h 44m a.m. l.m.t., I set off 38° 05' on the lat. arc; 11° 56' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 26, 27, 34, and 35.

Thence I run

S. 89° 54' E. on a random line bet. secs. 26 and 35,

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.08 Intersect N. and S. line 14 lks. N. of cor. of secs. 25, 26, 35, and 36.

Thence I run

N. 89° 48' W. on a true line bet. secs. 26 and 35,

Through dense timber and scattering undergrowth of sagebrush and grass.

Ascend ridge.

2.75 Top of ridge, 60 ft. above sec. cor., brs. S. 15° E. and N. 15° W. Descend.

7.00 Bottom of depression, 60 ft. below top of spur, drains

Subdivision of T.31 S., R.17 W.

Chains.

SW.

Ascend.

12.25 Top of spur, 40 ft. above depression, projects S.30° W.  
about 10 chs.

Descend.

16.00 Wash, 8 lks. wide, 2 ft. deep, 80 ft. below top of spur,  
drains S.10° W.

Ascend.

24.00 Top of ridge, 185 ft. above wash, brs. N. and S.

Descend.

34.75 Wash, 6 lks. wide, 1 ft. deep, 125 ft. below top of ridge,  
drains S.

Ascend.

40.04 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the  
ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 26  
in N. half, and S 35 in S. half; from which

A pine, 6 ins. in dia., brs. N. 37° 30' E., 29 lks.  
dist., marked  $\frac{1}{4}$  S 26 B T

A pine, 12 ins. in dia., brs. S. 37° 30' W., 4 lks.  
dist., marked  $\frac{1}{4}$  S 35 B T

Cor. is located on E. slope of ridge, 150 ft. above wash.

Oct. 25: At this cor. I set off 11° 59' S. on the decl. arc;  
and at 11h 44m a.m. l.m.t., observe the sun on the  
meridian; the resulting lat. is 38° 05'

54.00 Top of ridge, 200 ft. above  $\frac{1}{4}$  sec. cor., brs. SW. and NE.

Descend.

70.75 Wash, 15 lks. wide, 2 ft. deep, 260 ft. below top of ridge,  
drains S.

Ascend.

80.08 The cor. of secs. 26, 27, 34, and 35.

Land, rough and mountainous.

Soil, rocky; 4th rate.

Timber, cedars and pinon pine.

Undergrowth, scattering sagebrush and grass.

Oct. 25, 1910.

Subdivision of T.31 S., R.17 W.

Chains.

Oct.26: At 8h 44m a.m.l.m.t., I set off  $38^{\circ} 05'$  on the lat.arc;  $12^{\circ} 16' 30''$  S.on the decl.arc; and determine a meridian with the solar at the cor.of secs.26,27, 34, and 35.

Thence I run

N. $0^{\circ} 01'W$ .bet.secs.26 and 27,

Over rough mountainous land; through timber and scattering undergrowth of sagebrush and grass.

Ascend spur.

3.00 Top of spur, 40 ft.above sec.cor., projects N. $75^{\circ} E$ .  
5 chs.

Descend.

4.25 Bottom of depression, 30 ft.below spur, drains E.  
Ascend.

6.00 Top of spur, 15 ft.above depression, projects S. $60^{\circ} E$ .  
2 chs.

Descend.

7.25 Wash, 5 lks.wide, 1 ft.deep, 20 ft.below spur, drains E.

Ascend.

12.50 Top of spur, 40 ft.above wash, projects SE., about 6 chs. Descend.

18.50 Wash, 5 lks.wide, 1 ft.deep, 50 ft.below spur, drains S. $70^{\circ} E$ .

Ascend.

20.00 Top of ascent, 20 ft.above wash, brs.E. and W.  
Descend.

25.10 Wash, 20 lks.wide, 1 ft.deep, 20 ft.below top of ascent, drains S. $30^{\circ} W$ .

Ascend.

39.00 Top of rocky spur, 200 ft.above wash, projects NW. 4 chs. Descend.

40.00 Set an iron post 3 ft.long, 1 in.dia., 26 ins.in the ground, for  $\frac{1}{4}$  sec.cor., marked on brass cap  $\frac{1}{4}$  S 27 in

Subdivision of T.31 S., R.17 W.

Chains.

W.half, and S 26 in E.half; from which

A pine, 6 ins.in dia., brs.N.84°25'W., 42 lks.  
dist., marked  $\frac{1}{4}$  S 27 B T

A pine, 26 ins.in dia., brs.N.84° 40'E., 64 lks.  
dist., marked  $\frac{1}{4}$  S 26 B T

Cor.is located on NE.slope of spur, 20 ft. below top.

43.00 Bottom of depression, 40 ft.below top of spur, drains  
NE.

Ascend.

52.00 Top of rocky spur; 140 ft.above depression, projects  
N.80° E.

Descend.

70.00 Wash, 20 lks.wide, 2 ft.deep, 350 ft.below spur,drains  
E.

Ascend.

80.00 Set an iron post 3 ft.long, 2 ins.dia.; 24 ins.in the  
ground, for cor.of secs.22,23,26, and 27, marked on  
brass cap

T 31 S S 22 in NW.

R 17 W S 23 in NE.

S 26 in SE.; and

S 27 in SW.quadrants;

from which

A pine, 12 ins.in dia., brs.N.56° 34'W., 24 lks.  
dist., marked T 31 S R 17 W S 22 B T

A cedar, 6 ins.in dia., brs.N.63° 10'E., 29 lks.  
dist., marked T 31 S R 17 W S 23 B T

A pine, 12 ins.in dia., brs.S.36° 43'E., 30 lks.  
dist., marked T 31 S R 17 W S 26 B T

A pine, 12 ins.in dia., brs.S.52° W. 7 lks.dist.  
marked T 31 S R 17 W S 27 B T

Land, rough and mountainous.

Soil, rocky; 4th rate.

Timber, cedars, pinon pine and a few scattering long

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

leaf pine.

Undergrowth, scattering sagebrush and grass.

Oct. 26: At this cor. I set off 12°19'30"S. on the decl. arc. and at 11h 44m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 38°06'.

S. 89°48'E. on a random line bet. secs. 23 and 26.

40.00 Set temp. 1/4 sec. cor.

Oct. 26, 1910.

Oct. 27: At 8h 44m a.m., l.m.t., I set off 38°06' on the lat. arc. 12°37'S. on the decl. arc; and determine a meridian with the solar at the temp. 1/4 sec. cor. bet secs. 23 and 26.

Thence I continue

S. 89°48'E. on a random line bet. secs. 23 and 26.

80.18 Intersect N. and S. line 6 lks. N. of the cor. of secs. 23, 24, 25 and 26.

Thence I run

N. 89°45'W. on a true line bet. secs. 23 and 26.

Over mountainous land, through timber and scattering undergrowth of sagebrush and grass.

Ascend slightly, along N. slope of peak.

2.75 Top of ascent, 10 ft. above sec. cor.

Descend over W. slope of peak.

26.00 Foot of peak, 300 ft. below top, brs. NW. and SE.

Ascend.

33.50 Top of spur, 35 ft. above foot, projects N. 30°E. about 4 chs.

Descend.

40.09 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap 1/4 S 23 in N. half and S 26 in S. half, from which

A pine, 10 ins. dia., brs. N. 2°40'E.,

72 lks. dist., marked 1/4 S 23 B T.

A pine, 12 ins. in dia., brs. S. 2°10'W. 43

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

lks. dist., marked  $\frac{1}{4}$  S 26 B.T.

45.00 Wash, 5 lks. wide, 2 ft. deep, 90 ft. below top of spur,  
drains N.

Ascend.

51.00 Top of spur, 85 ft. above wash, projects NE. about 8 chs.  
Descend.

57.50 Wash, 5 lks. wide, 1 ft. deep, 70 ft. below top of spur,  
drains NE.

Ascend.

80.18 The cor. of secs. 22, 23, 26 and 27.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedars and pimon pine.

Undergrowth, scattering sagebrush and grass.

Oct. 27: At this cor. I set off  $13^{\circ}40'S$ . on the decl.  
arc; and at 11h 44m a.m., l.m.t., observe the sun on  
the meridian, the resulting lat. is  $38^{\circ}06'$ .

N.  $0^{\circ}01'W$ . bet. secs. 22 and 23.

Over mountainous land, through timber, and scattering  
undergrowth of sagebrush and grass.

Ascend.

6.00 Top of ridge, 70 ft. above sec. cor., brs. N.  $80^{\circ}E$ . and  
S.  $80^{\circ}W$ .

Descend.

25.00 Bottom of depression, 225 ft. below top of ridge, drains  
E.

Ascend.

31.00 Top of ascent, 30 ft. above depression, brs. SE., country  
becomes rolling hills here.

Thence on nearly level line.

38.00 Descend, brs. E. and W.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the  
ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 22 on  
W. half and S 23 on E. half; from which

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

A pine, 10 ins. in dia., brs. N. 52°50'W.,  
26 lks. dist., marked  $\frac{1}{4}$  S 22 B T.

A pine, 8 ins. dia., brs. S. 71°10'E.,  
16 lks. dist., marked  $\frac{1}{4}$  S 23 B T.

54.40 Wash, 15 lks. wide, 3 ft. deep, 100 ft. below point of  
descent, drains E.  
Ascend.

65.00 Top of spur, 135 ft. above wash, projects SE. about 15 chs.  
Descend.

68.80 Bottom of depression, 20 ft. below top of spur, drains  
NE.  
Ascend.

77.00 Top of spur, 15 ft. above depression, projects NE. about  
.8 chs.  
Descend.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 14 ins. in the  
ground on rock and erect a mound of stone 4 ft. base,  
12 ins. high, around post, for cor. of secs. 14, 15, 22  
and 23, marked on brass cap.

T 31 S S 15 in NW.

R 17 W S 14 in NE.

S 23 in SE. and

S 22 in SW. quadrants; from which

A pine, 8 ins. in dia., brs. N. 55°40'W.,

3 lks. dist., marked T 31 S R 17 W S 15 B T.

A pine, 6 ins. dia., brs. N. 75°14'E.,

73 lks. dist., marked T 31 S R 17 W S 14 B T.

A pine, 14 ins. dia., brs. S. 7°20'E.,

69 lks. dist., marked T 31 S R 17 W S 23 B T.

A pine, 8 ins. in dia., brs. S. 28°30'W.,

27 lks. dist., marked T 31 S R 17 W S 22 B T.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedar and pinon pine.

Undergrowth, scattering sagebrush and grass.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

October 27, 1910.

Oct. 28, 1910: At 8h a.m., l.m.t., I set off 12°56'S. on decl. arc. 38°07' on the lat. arc; and determine a meridian with the solar at the cor. of secs. 14, 15, 22 and 23.

Thence I run S. 89°45'E. on a random line bet. secs. 14 and 23.

40.00 Set temp. 1/4 sec. cor.

80.10 Intersect N. and S. line 3 lks. S. of cor. of secs. 13, 14, 23 and 24.

Thence I run N. 89°46'W. on a true line bet. secs. 14 and 23.

Over rolling hills; through dense timber and scattering undergrowth of sagebrush and grass.

1.00 Wash, 6 lks. wide, 1 ft. deep, drains NE.

Ascend.

11.20 Top of spur, 100 ft. above sec. cor., projects NE. about 12 chs.

Descend.

19.10 Wash, 4 lks. wide, 1 ft. deep, 35 ft. below top of spur, drains NE.

Ascend.

34.00 Top of spur, 75 ft. above wash, projects NW. about 10 chs.

Descend.

38.15 Wash, 1.50 chs. wide, 75 ft. below spur, drains north.

Ascend.

40.05 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap 1/4 S 14 on N. half and S 23 in S half; from which

A pine, 6 ins. in dia., brs. N. 2°40'W.,

50 lks. dist., marked 1/4 S 14 B.T.

A pine, 6 ins. dia., brs. S. 25°15'E.,

13 lks. dist., marked 1/4 S 23 B T.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

53.00 Top of spur, 75 ft. above wash, projects N. 60°E., about  
8 chs. . . . .  
Descend.

60.00 Bottom of depression, 10 ft. below top of spur, drains NE.  
Ascend.

67.50 Top of spur, 60 ft. above depression, projects N. 30°E.  
about 4 chs. . . . .  
Descend.

71.20 Bottom of depression, 20 ft. below top of spur, drains  
N. 10°E. . . . .  
Ascend.

80.10 The cor. of secs. 14, 15, 22 and 23. . . . .  
Land, rolling hills.  
Soil, gravelly and rocky, 3rd and 4th rate.  
Timber, cedars and pinon pine.  
Undergrowth of scattering sagebrush and grass.  
Oct. 28: At this cor. I set off 13°00'S. on the decl.  
arc. and at 11h 44m a.m., l.m.t., observe the sun on  
the meridian.  
The resulting lat. is 38°07'.

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N. 0°01'W. bet. secs. 14 and 15.  
Over rolling hills; through timber and scattering under-  
growth sagebrush and grass.  
Descend.

19.25 Wash, 6 lks. wide, 2 ft. deep, 150 ft. below sec. cor.,  
drains N. 80°E.

26.00 Top of ascent, 90 ft. above wash, brs. SE. and NW.  
Thence on nearly level line.

37.00 Descend, brs. NW. and SE.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S  
15 in W. half and S 14 in E half; from which  
A pine, 6 ins. in dia., brs. S. 38°20'W., 34

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

lks. dist., marked  $\frac{1}{4}$  S 15 B T.

A cedar, 6 ins. in dia., brs. N. 83°45'E.,

39 lks. dist., marked  $\frac{1}{4}$  S 14 B T.

59.25 Old wagon road, brs. E. and W.

61.65 Wash, 4 lks. wide, 1 ft. deep, 75 ft. below top of

descend, drains N. 65°E.

Ascend.

66.00 Top of spur, 20 ft. above wash, projects NE. 8 chs.

Descend.

77.30 Wagon road, brs. E. and S. 60°W.

78.45 Wash, 10 lks. wide, 4 ft. deep, 80 ft. below top of spur,

drains N. 60°E.

Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in

the ground for cor. of secs. 10, 11, 14 and 15,

marked on brass cap

T 31 S S 10 in NW

R. 17 W S 11 in NE

S 14 in SE. and

S 15 in SW. quadrants, from which

A cedar, 6 ins. in dia., brs. N. 29°W.,

26 lks. dist., marked T 31 S R 17 W S 10 B T.

A pine, 8 ins. in dia., brs. N. 11°30'E.,

1.20 chs. dist., marked T 31 S R 17 W S 11 B T.

A cedar, 6 ins. in dia., brs. S. 72°E.,

70 lks. dist., marked T 31 S R 17 W S 14 B T.

A cedar, 6 ins. in dia., brs. S. 32°30'W.,

70 lks. dist., marked T 31 S R 17 W S 15 B T.

Land, low rolling hills.

Soil, sandy and gravelly loam, 2nd and 3rd rates.

Timber, cedars and pinon pine.

Undergrowth, scattering sagebrush and grass.

Oct. 28, 1910.

S. 89°46'E. on a random line bet. secs. 11 and 14.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

- 40.00 Set temp.  $\frac{1}{4}$  sec. cor.
- 80.02 Intersect N. and S. line 6 lks. S. of cor. of secs. 11, 12, 13 and 14. Thence I run S.  $89^{\circ}49'W.$  on a true line bet. secs. 11 and 14. Over rolling land; through timber and scattering sagebrush and grass. Ascend slightly.
- 16.00 Top of ascent, 50 ft. above sec. cor., brs. NE. and SW. Descend slightly.
- 25.45 Wash, 20 lks. wide, 3 ft. deep, 10 ft. below top of ascent, drains NE. Ascend slightly.
- 40.01 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 11 in N. half and S 14 in S. half, from which
  - A pine, 8 ins. in dia., brs. N.  $4^{\circ}30'W.$ , 92 lks. dist., marked  $\frac{1}{4}$  S 11 B T.
  - A cedar, 6 ins. in dia., brs. S.  $0^{\circ}45'W.$ , 30 lks. dist., marked  $\frac{1}{4}$  S 14 B T.
- 48.00 Top of ascent, 50 ft. above wash, brs. NE. and SW. Descend.
- 53.50 Bottom of depression, 15 ft. below top of ascent, drains NE.
- 59.00 Timber becomes scattering, brs. N. and S.
- 62.00 Top of spur, 30 ft. above depression, projects NE. about 10 chs. Descend.
- 71.00 Enter dense timber, brs. N. and S.
- 72.60 Wagon road, brs. NE. and SW.
- 75.00 Wash, 10 lks. wide, 4 ft. deep, 30 ft. below top of spur, drains N.  $60^{\circ}E.$  Ascend.
- 80.02 The cor. of secs. 10, 11, 14 and 15. Land, rolling and hilly. Soil, gravelly loam, 2nd and 3rd rate. Timber, cedars and pinon pine. Undergrowth, scattering sagebrush and grass. Oct. 29: At this cor. I set off  $15^{\circ}20'S.$  on the decl. arc. and at 11h 44m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is  $38^{\circ}08'.$

N.  $0^{\circ}01'W.$  bet. secs. 10 and 11.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

Over rolling hilly country; through dense timber and undergrowth of sagebrush and grass. Ascend.

4.50 Top of ridge, 25 ft. above sec. cor., brs. NE. and SW. Descend slightly.

11.45 Wash, 8 lks. wide, 1 ft. deep, 30 ft. below top of ridge, drains E. Ascend.

30.00 Top of rolling ridge, 105 ft. above wash, brs. E. and W. Descend slightly.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 10 in W. half and S 11 in E. half; from which

A pine, 10 ins. in dia., brs. S.  $68^{\circ}50'W.$ , 38 lks. dist., marked  $\frac{1}{4}$  S 10 B T.

A cedar, 16 ins. in dia., brs. N.  $56^{\circ}30'E.$ , 118 lks. dist., marked  $\frac{1}{4}$  S 11 B T.

61.80 Wash, 50 lks. wide, 1 ft. deep, 90 ft. below top of ridge, drains NE. Ascend slightly.

66.00 Top of spur, 30 ft. above wash, projects NE. about 12 chs. Descend.

78.90 Wash, 30 lks. wide, 1 ft. deep, 50 ft. below top of spur, drains N.  $60^{\circ}E.$  Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 2, 3, 10 and 11, marked on brass cap

T 31 S S 3 in NW

R 17 W S 2 in NE

S 11 in SE. and

S 10 in SW. quadrants, from which

A cedar, 6 ins. in dia., brs. N.  $45^{\circ}30'W.$ , 72 lks. dist., marked T 31 S R 17 W S 3 B T

A cedar, 8 ins. dia., brs. N.  $7^{\circ}50'E.$ , 36 lks. dist., marked T 31 S R 17 W S 2 B T.

A cedar, 6 ins. in dia., brs. S.  $14^{\circ}40'E.$ , 160 lks. dist., marked T 31 S R 17 W S 11 B T.

A cedar, 6 ins. in dia., brs. S.  $83^{\circ}50'W.$ , 41 lks. dist., marked T 31 S R 17 W S 10 B T.

Subdivision of T. 31 S., R. 17 W.

Chains

Land, rolling hills.  
 Soil, gravelly loam, 2nd and 3rd rate.  
 Timber, cedars and pinon pine.  
 Undergrowth of scattering sagebrush and grass.

Oct. 29, 1910.

*Robert E. L. Collier*  
 Instrumentman G.L.O.

This 30th day of October, 1910 Mr. R. E. L. Collier,  
 Instrumentman G.L.O., discontinued work. Mr. Eric.  
 H. Anderson is appointed as Instrumentman G. L. O.

The following change in the party is made: John  
 Kienenberger is given the position as head chainman  
 and Lawrence D. Simmons as rear chainman.

I employ Mr. L. S. Nuttall and Wm. Malcolm as moundmen.

No officer authorized to administer oaths, other than  
 myself, being available, without great inconvenience,  
 delay and expense, I administer the required  
 preliminary and final oaths.

*Ralph Gurley*  
 Instrumentman G.L.O.

Survey commenced October 30, 1910, and executed with a  
 W. & L. E. Gurley light mountain transit, with solar  
 attachment. The horizontal limb is provided with two  
 double verniers placed opposite to each other, reading  
 to single minutes of arc, which is also the least count  
 of the verniers of the latitude and declination arcs.  
 The instrument was examined, tested on the true meridian  
 at Salt Lake City, found correct, and was approved by  
 the surveyor general for Utah.

I examine the adjustments of the transit, which I find  
 correct, then to test the solar apparatus by comparing  
 its indications, resulting from solar observations made  
 during a.m. and p.m. hours, with a meridian determined  
 by observation on Polaris, I proceed as follows :

At the cor. of secs. 2, 3, 10 and 11 in T. 31 S., R. 17 W  
 I set off 38°09'N. on the lat. arc; 13°42'S. on the  
 decl. arc; and at 3h 00m p.m., l.m.t., determine with

Subdivision of T. 31 S., R. 17 W.

Chains

the solar a meridian and mark a point thereof on a peg driven in the ground 5 chs. S. of the cor.

October 30, 1910.

October 31, 1910: At 4h 50m a.m., l.m.t., I observe Polaris at western elongation in accordance with Manual of Instructions, and mark a point in the line thus determined on a peg driven in the ground 5 chs. S. of my station.

At 8h 30m a.m., l.m.t., I lay off the azimuth of Polaris 1°29' to the west and mark the meridian thus determined by marking peg set October 30, on which the meridian falls 0.4 ins. east of mark determined by the solar.

At 9h 00m a.m., l.m.t., I set off 38°08' on the lat. arc; 13°57'S. on the decl. arc; and mark a point in the meridian determined with the solar on the peg already set 5 chs. S. of my station; this mark falls 0.2 ins. east of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m., observations defines positions for meridians, respectively about 0'20" west and 0'10" east of the meridian established by the Polaris observation: therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian is N.16°30'W. the angle thus determined gives the mag. decl. 16°30'E. Oct. 31, 1910.

Nov. 4, 1910: At 9h 00m a.m., l.m.t., I set off 38°09' on the lat. arc; 15°13'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 10 and 11. Thence I run S.89°49'E. on a random line bet. secs. 2 and 11.

40.00 Set temp. 1/4 sec. cor.

80.24 Intersect N. and S. line 9 lks. N. of cor. of secs. 1, 2,

Subdivision of T. 31 S., R. 17 W.

Chains 11 and 12, Thence I run  
 N.89°45'W. on a true line bet. secs. 2 and 11.  
 Over rolling land, through scattering cedar and pinon  
 pine; undergrowth of sagebrush. Descend gently.  
 8.00 Leave scattering, enter heavy timber, bears N. and S.  
 11.15 Wash, 10 lks. wide, 1 ft. deep, course NE.  
 32.80 Wash, 10 lks. wide, 1 ft. deep, course NE.  
 40.12 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in  
 the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 2  
 on N half and S 11 on S half, from which  
     A pinon pine, 8 ins. in diam., brs. N.38°15'E.,  
     15 lks. dist., marked  $\frac{1}{4}$  S 2 B T  
     A cedar, 6 ins. dia., bears S.37°00'E., 54  
     lks. dist., marked  $\frac{1}{4}$  S 11 B T  
 48.00 Leave heavy, enter scattering timber, bears N. and S.  
 80.24 The cor. of secs. 2, 3, 10 and 11.  
 Land rolling.  
 Soil, gravelly loam, 3rd rate.  
 Timber, heavy cedar and pinon pine 40 chs., scattering  
 timber 40 chs.  
 Undergrowth, sagebrush and scattering grass.

November 4, 1910.

November 5, 1910: At 9h 00m. a.m., l.m.t., I set off 38°  
 09' on the lat. arc; 15°32'S. on the decl. arc; and  
 determine a meridian with the solar at the cor. of secs.  
 2, 3, 10 and 11. Thence I run

N.0°01'W. bet. secs. 2 and 3.

Over rolling mountainous land, through heavy cedar and  
 pinon pine, with undergrowth of scattering sagebrush.  
 Ascend gently.

5.50 Top of ridge, bears E. and W. 18 ft. above sec. cor. Desc.

16.90 Wash, 25 lks. wide, 6 ft. deep, course E. 42 ft. below  
 top of ridge. Ascend.

24.00 Top of ridge, bears E. and W., 100 ft. above wash. Descend.

39.64 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

Subdivision of T. 31 S., R. 17 W.

Chains

the ground for witness cor. marked on brass cap T 31 S.  $\frac{1}{4}$  W C S 3 on W half and R 17 W S 2 on E half; from which

A cedar, 14 ins.diam.,brs. N.57° 45'E.,

66 lks.dist., marked W C  $\frac{1}{4}$  S 2 B T

A pinon pine, 8 ins.diam.,brs. S. 38°41'W.,

50 lks.dist., marked W C  $\frac{1}{4}$  S 3 B T

40.00 Point for  $\frac{1}{4}$  sec. cor. falls in wash,16 lks. wide, 2 ft. deep, course E. 32 ft. below top of ridge, where it would be difficult to perpetuate corner.Corner not set.

Nov. 5, 1910.

*Eric H. Anderson*  
Instrumentman G.L.O.

Note: For reasons already given in notes of E.bdy. of this township bet. secs. 1 and 6.

Dec. 6, 1910: I run this line from the point for  $\frac{1}{4}$  sec. cor. as follows:

N.0°01'W. bet. secs. 2 and 3. Ascend.

52.00 Leave heavy, enter scattering timber, bears E. and W.

61.50 Leave scattering, enter heavy timber, bears E. and W.

64.00 Top of ridge, bears NE. and SW. Descend.

76.00 Depression bears NE. and SW., 55 ft. below top of ridge; ascend gently.

84.00 Top of rolling ridge, bears NE. and SW.

At 11h 44m a.m.;1.m.t., I set off 15°35'S. on the declination arc. and observe the sun on the meridian; the resulting lat. is 38°09'. Descend gently.

110.83 Intersect 6th Standard Parallel South, 8.53 chs.west of standard cor. of secs. 34 and 35; heretofore described. Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. of secs. 2 and 3, marked on brass cap

C C T 30 S R 17 W S 34 S 35 in N half

S 2 in SE.

S 3 in SW. quadrants, from which

A pinon pine, 8 ins.dia., bears S.69°20'E., 40

Subdivision of T. 31 S., R. 17 W.,

Chains

lks. dist., marked C C T 31 S R 17 W S 2 B T

A pinon pine, 14 ins. diam., bears S. 43° 10' W.; 26

lks. dist., marked C C T 31 S R 17 W S 3 B T

Land, rolling mountainous.

Soil, sandy and gravelly loam, 2nd and 3rd rate.

Timber, cedar and pinon pine.

Undergrowth, scattering sagebrush.

December 6, 1910.

*Ralph Gentry*  
Instrumentman G.L.O.

Oct. 29: At 8h 44m a.m., l.m.t., I set off 13° 17' S. on the decl. arc; 38° 04' on the lat. arc; and determine a meridian with the solar at the cor. of secs. 3, 4, 33 and 34 on S. bdy. of Tp. which is a gray igneous stone 10x6x6 ins. above the ground, mkd. and witnessed as described by the Surveyor General. Thence I run N. 0° 02' W. bet. secs. 33 and 34.

Through dense timber and scattering undergrowth of sagebrush and grass. Ascend along E. slope of spur.

- 2.00 Top of ascent, 10 ft. above sec. cor. Descend.
- 10.00 Enter scattering timber, brs. NW. and SE.
- 12.00 Head of ravine 50 ft. below top of ascent, drains SE. Ascend slightly.
- 15.50 Saddle, between ridge and spur, 10 ft. above head of ravine, brs. NE. and SW. Descend.
- 21.25 Wash, 10 lks. wide, 2 ft. deep, 50 ft. below saddle, drains N. 60° E. Ascend.
- 24.00 Top of spur, 25 ft. above wash, brs. E. Descend.
- 24.50 Wash, 12 lks. wide, 2 ft. deep, 25 ft. below spur, drains E. Ascend.
- 28.00 Enter dense timber, brs. E. and W.
- 31.00 Top of ridge, 225 ft. above wash, brs. N. 80° W. and S. 80° E. Descend.
- 39.50 Bottom of gulch, 20 lks. wide, 2 ft. deep, 225 ft. below top of ridge, drains S. 40° E.

Subdivision of T. 31 S., R. 17 W.

Chains	
	Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor.; marked on brass cap $\frac{1}{4}$ S 33 in W half, and S 34 in E half; from which A pine, 30 ins. dia., brs. S. $36^{\circ}45'W.$ , 83 lks. dist., marked $\frac{1}{4}$ S 33 B T A pine, 6 ins. in dia., brs. S. $55^{\circ}30'E.$ , 9 lks. dist., marked $\frac{1}{4}$ S 34 B T Cor. is located in bottom of gulch, which drains S. $40^{\circ}E.$ Oct. 29: At this cor. I set off $13^{\circ}20'S.$ on the decl. arc; and at 11h 44m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is $38^{\circ}05'$ . Ascend ridge.
54.00	Foot of ledge, 30 ft. high, brs. E. and W.
56.00	Top of ledge, and ridge, 200 ft. above $\frac{1}{4}$ sec. cor., brs. NW. and SE. Timber becomes scattering, enter dense growth of mahogany, brs. NW. and SE. Descend slightly.
64.00	Foot of descent, 20 ft. below top of ridge, brs. E. Ascend along E. foot of peak.
68.00	Top of ascent, 30 ft. above foot, brs. E. Descend through undergrowth of scattering mahogany.
78.50	Wash, 5 lks. wide, 1 ft. deep, 50 ft. below top of descent, drains SE. Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 27, 28, 33 and 34, marked on brass cap T 31 S S 28 in NW R 17 W S 27 in NE S 34 in SE. and S 33 in SW. quadrants; from which A pine, 26 ins. in dia., brs. N. $45^{\circ}45'E.$ , 1.77 chs. dist., marked T 31 S R 17 W S 27 B T A pine, 24 ins. in dia., brs. S. $59^{\circ}30'E.$ , 80 lks. dist., marked T 31 S R 17 W S 34 B T A pine, 26 ins. in dia., brs. S. $61^{\circ}30'W.$ , 1.77 chs. dist., marked T 31 S R 17 W S 33 B T No other bearing trees available. Raise a mound of stone $2\frac{1}{2}$ ft. base, 2 ft. high W. of cor.

## Subdivision of T. 31 S., R. 17 W.

Chains

Land, rough and mountainous.

Soil, rocky, 4th rate.

Timber, pinon pine, cedars and a few scattering long leaf pine.

Undergrowth, scattering sagebrush, grass and dense mahogany, for 12 chs.

Cor. is located on the south slope of very rocky ridge.  
20 ft. above wash.

Oct. 29, 1910.

November 5: At 8h 44m a.m., l.m.t., I set off  $38^{\circ}05'$  on the lat. arc;  $15^{\circ}32'S$ . on the decl. arc; and determine a meridian with the solar at the cor. of secs. 27, 28 33 and 34. Thence I run  $S.89^{\circ}54'E$ . on a random line bet. secs. 27 and 34.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.04 Intersect N. and S. line 10 lks. S. of cor. of secs. 26, 27, 34 and 35. Thence I run  $N.89^{\circ}58'W$ . on a true line bet. secs. 27 and 34.

Over rough mountainous land, through dense timber and scattering undergrowth of sagebrush.

Ascend mountain.

35.50 Top of rocky spur, 800 ft. above sec. cor., projects S. about 6 chs.

Descend, very rough.

39.30 Top of ledge, brs. N. and S. 10 ft. below top of spur.

39.80 Foot of ledge, 100 ft. below top.

40.02 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 27 in N half and S 34 in S half; from which

A pine, 8 ins. in dia., brs.  $N.46^{\circ}10'W$ ., 1.52chs. dist., marked  $\frac{1}{4}$  S 27 B TA pine, 10 ins. in dia., brs.  $S.7^{\circ}E$ ., 55lks. dist., marked  $\frac{1}{4}$  S 34 B TNov. 5: At this cor. I set off  $15^{\circ}35'S$ . on the decl.

Subdivision of T. 31 S., R. 17 W.

Chains

arc. and at 11h 44m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 38°05'.

44.00 Bottom of depression, 65 ft. below 1/4 sec. cor., drains S.

Ascend spur.

49.25 Top of rocky spur, 75 ft. above depression, projects S.

about 8 chs.

Descend.

53.50 Foot of descent, 25 ft. below top of spur, brs. NW. and

SE.

Ascend.

55.70 Top of ridge, 50 ft. above foot of descent, brs. N. and

S.

Descend.

67.90 Bottom of depression, 150 ft. below top of ridge, drains

S.

Ascend.

80.04 The cor. of secs. 27, 28, 33 and 34.

Land, mountainous, very rough.

Soil, rocky, 4th rate.

Timber, cedars and pinon pine and a few scattering long leaf pine.

Undergrowth of scattering sagebrush.

Nov. 5, 1910.

Nov. 7, 1910: At 8h 44m a.m., l.m.t., I set off 38°05'

on the lat. arc; 16°08'S. on the decl. arc; and deter-

mine a meridian with the solar at the cor. of secs. 27,

28, 33 and 34.

Thence I run

N.0°02'W. bet. secs. 27 and 28.

Over mountainous land, through timber and scattering undergrowth of sagebrush and mahogany.

Ascend mountain, very rough.

7.75 Top of mountain, 350 ft. above sec. cor., brs. E. and

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

SW.

Descend.

23.50 Wash, 10 lks. wide, 1 ft. deep, 300 ft. below top of mountains, drains W.

Ascend.

27.00 Top of spur, 35 ft. above wash, projects NW. about 8 chs.

Descend.

35.90 Wash, 8 lks. wide, 1 ft. deep, 215 ft. below top of spur, drains NW.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 28 in W. half and S 27 in E. half, from which

A pine, 6 ins. in dia., brs. S.  $34^{\circ}15'W.$ ,  
24 lks. dist., marked  $\frac{1}{4}$  S 28 B T.

A pine, 8 ins. in dia., brs. S.  $82^{\circ}30'E.$ ,  
45 lks. dist., marked  $\frac{1}{4}$  S 27 B T.

Nov. 7: At this cor. I set off  $16^{\circ}11'S.$  on the decl. arc. and at 11h 44m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is  $38^{\circ}05'$ .

41.50 Top of spur, 40 ft. above wash, projects N:  $30^{\circ}W.$

Descend.

72.50 Wash, 10 lks. wide, 2 ft. deep, 300 ft. below top of spur, drains N.  $70^{\circ}E.$

Ascend.

76.00 Top of spur, 25 ft. above wash, projects E. about 5 chs.

Descend.

78.35 Wash, 10 lks. wide, 5 ft. deep, 25 ft. below top of spur, drains E.

Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 21, 22, 27 and 28, marked on brass cap

T 31 S S 21 in NW.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

R 17 W S 22 in NE.

S 27 in SE. and

S 28 in SW. quadrants; from which

A pine, 12 ins. in dia., brs. N. 55°30'W.,

41 lks. dist., marked T 31 S R 17 W S 21 B T.

A pine, 6 ins. in dia., brs. N. 31°E.,

36 lks. dist., marked T 31 S R 17 W S 22 B T.

A pine, 12 ins. in dia., brs. S. 23°30'E.,

2 chs. dist., marked T 31 S R 17 W S 27 B T.

A pine, 10 ins. in dia., brs. S. 79°45'W.,

81 lks. dist., marked T 31 S R 17 W S 28 B T.

Land, mountainous and rough.

Soil, rocky, 4th rate.

Timber, cedars and pinon pine and a few scattering long leaf pine.

Undergrowth of scattering mahogany and sagebrush.

S. 89°58'E. on a random line bet. secs. 22 and 27.

40.00 Set temp.  $\frac{1}{4}$  sec. cor. . . .

Nov. 7, 1910.

Nov. 8: At 8h 44m a.m., l.m.t., I set off 38°06' on the lat. arc. 16°26'S. on the decl. arc. and determine a meridian with the solar at the  $\frac{1}{4}$  sec. cor., bet. secs. 22 and 27.

Thence I run

S. 89°58'E. on a random line bet. secs. 22 and 27.

79.76 Intersect N. and S. line 20 lks. S. of cor. of secs. 22, 23, 26 and 27.

Thence I run

S. 89°52'W. on a true line bet. secs. 22 and 27.

Over mountainous land, through timber and undergrowth of sagebrush and grass.

Ascend spur.

9.50 Top of spur, 110 ft. above sec. cor., brs. S. 20°E. and N. 20°W.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

Descend.

14.00 Bottom of depression 30 ft. below top of spur, drains S.

Ascend.

24.00 Top of ridge, 180 ft. above depression, brs. N. and S.

Descend.

39.88 set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap 1/4 S 22 in N half, and S 27 in S. half, from which

A pine, 8 ins. in dia., brs. N. 43°45' W.,

1.32 chs. dist., marked 1/4 S 22 B T.

A pine, 12 ins. in dia., brs. S. 71°50' E.,

48 lks. dist., marked 1/4 S 27 B T.

41.60 Bottom of depression, 300 ft. below top of ridge, drains N.

Ascend.

43.50 Top of spur, 25 ft. above depression, brs. N. 30° E. about 4 chs.

Descend.

45.60 Bottom of gulch, 10 lks. wide, 1 ft. deep, 10 ft. below spur, drains N. 60° E.

Ascend.

51.00 Top of spur, 110 ft. above gulch, projects NE. about 10 chs.

Descend.

67.60 Bottom of canyon, wash 70 lks. wide, 4 ft. deep, 110 ft. below top of spur, drains NE.

Ascend.

72.00 Top of spur, 100 ft. above wash, projects S. 10° E., about 4 chs.

Descend.

79.76 The cor. of secs. 21, 22, 27 and 28.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedars and pinon pine.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

Undergrowth of sagebrush and scattering grass.

Nov. 8: At this cor. I set off 16°29'S. on the decl. arc. and at 11h 44m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 38°06'.

N. 0°02'W. bet. secs. 21 and 22.

Over mountainous land, through timber and scattering undergrowth of sagebrush and grass.

Ascend.

9.00 Top of spur, 200 ft. above sec. cor., projects SE., thence ascend gradually along E. slope of ridge.

30.00 Top of ridge, 110 ft. above top of spur, brs. S. 15°W. and NE.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap 1/4 S 21 in W. half and S 22 in E. half, from which

A pine, 8 ins. in dia., brs. S. 87°45'W., 82 lks. dist., marked 1/4 S 21 B T.

A pine, 10 ins. in dia., brs. N. 87°30'E., 49 lks. dist., marked 1/4 S 22 B T.

Cor. stands on W. slope of ridge, 145 ft. below top.

67.00 From this point a spring of fresh water, brs. west 2.17 chs. dist.

69.00 Timber becomes scattering, brs. NE. and SW.

73.65 Wash, 8 lks. wide, 2 ft. deep, 210 ft. below 1/4 sec. cor. drains NE.

Ascend.

78.25 Stream of fresh water, 3 lks. wide, 1 in. deep, drs. E.

80.00 set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 15, 16, 21 and 22, marked on brass cap

T 31 S S 16 in NW

R 17 W S 15 in NE

S 22 in SE. and

SUBDIVISION OF T. 31 S. R. 17 W.

CHAINS

- S 21 in SW. quadrants; from which
- A pine, 10 ins. in dia., brs. N. 32°30'W.,  
1.17 chs. dist., marked T 31 S R 17 W S 16 B T.
- A cedar, 6 ins. in dia., brs. N. 59°15'E.,  
17 lks. dist., marked T 31 S R 17 W S 15 B T.
- A pine, 24 ins. in dia., brs. S. 59°30'E.,  
2.88 chs. dist., marked T 31 S R 17 W S 22 B T.
- A pine, 14 ins. in dia., brs. S. 33°10'W.,  
2.40 chs. dist., marked T 31 S R 17 W S 21 B T.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedars, pinon pine and scattering long leaf pine.

Undergrowth of scattering sagebrush and grass.

From this cor. a spring of fresh pure water brs. S. 64°  
10'W. 5.78 chs. dist.

The NE. cor. of a corral, 60x75 ft. brs. S. 60°50'E.,  
2.92 chs. dist.

Nov. 8, 1910.

Nov. 9: At 8h 44m a.m., l.m.t., I set off 38°07' on the  
lat. arc. 16°43'S. on the decl. arc. and determine a  
meridian with the solar at the cor. of secs. 15, 16,  
21 and 22.

Thence I run

N. 89°53'E., on a random line bet. secs. 15 and 22.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

79.82 Intersect N. and S. line 3 lks. N. of cor. of secs. 14,  
15, 22 and 23.

Thence I run

S. 89°53'W. on a true line bet. secs. 15 and 22.

Over mountainous land, through timber and scattering  
undergrowth of sagebrush and grass.

Ascend.

11.50 Top of ridge, 105 ft. above sec. cor., brs. N. 15°E. and  
S. 15°W.

SUBDIVISION OF T. 31 S., R. 17 W.

Chains

Descend.

22.35 Wash, 10 lks. wide, 2 ft. deep, 125 ft. below top of ridge, drains N.

Ascend.

39.91 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 15 in N half and S 22 in S half; from which

A pine, 6 ins. in dia., brs. N. 15° 45' W., 30 lks. dist., marked  $\frac{1}{4}$  S 15 B T.

A pine, 8 ins. in dia., brs. S. 23° 30' E., 11 lks. dist., marked  $\frac{1}{4}$  S 22 B T.

Cor. is located on E. slope of ridge, 200 ft. above wash.

52.00 Top of ridge, 40 ft. above  $\frac{1}{4}$  sec. cor., brs. N. 30° E. and S. 30° W.

Descend.

61.50 Bottom of depression, 150 ft. below top of ridge, drains N. 15° E.

Ascend.

64.00 Top of spur, 20 ft. above depression, projects NE. about 8 chs.

Descend.

71.75 Wash, 8 lks. wide, 2 ft. deep, 50 ft. below top of spur, drains NE.

Ascend.

75.20 Stream of clear water 3 lks. wide, 1 in. deep, drains NE.

75.25 Old wagon road, brs. NE. and SW.

79.82 The cor. of secs. 15, 16, 21 and 22.

Land, mountainous.

Soil, gravelly and rocky 3rd and 4th rates.

Timber, cedars, pinon pine and a few scattering long leaf pine.

Undergrowth, scattering sagebrush and grass.

Nov. 9: At this cor. I set off 16° 46' S. on the decl. arc. and at 11h 44m a.m., l.m.t., observe the sun on the

Subdivision of T. 51 S., R. 17 W.

Chains

meridian, the resulting lat. is 38°07'

N.0°02'W. bet. secs. 15 and 16.

Over mountainous land; through timber and undergrowth of sagebrush and scattering grass.

Ascend.

4.25 Top of spur, 45 ft. above sec. cor., projects E.

Descend.

8.30 Wash, 5 lks. wide, 2 ft. deep, 80 ft. below top of spur, drains N.70°E.

Ascend.

12.00 Top of spur, 50 ft. above wash, projects NE. about 6 chs.

Descend.

15.50 Wash, 10 lks. wide, 1 ft. deep, 10 ft. below top of spur, drains E.

Ascend.

19.35 Top of ridge, 75 ft. above wash, brs. NE. and SW.

Descend.

27.40 Wash, 5 lks. wide, 1 ft. deep, 125 ft. below top of ridge, drains NW.

Ascend.

30.00 Top of spur, 10 ft. above wash, projects NW. about 4 chs.

Descend.

31.75 From this point Lone Pine Spring brs. N.68°10'W., 3.10 chs. dist.

36.00 Timber becomes scattering, brs. E. and W.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 16 in W half and S 15 in E half; from which

A pine, .6 ins. in dia., brs. N.89°45'W., 38 lks. dist., marked  $\frac{1}{4}$  S 16 B T

A pine, 12 ins. in dia., brs. S.26°30'E., 95 lks. dist., marked  $\frac{1}{4}$  S 15 B T

Thence over rolling land along W. foot of ridge.

Subdivision of T. 31 S., R. 17 W.

Chains

- 40.40 Wash, 6 lks. wide, 2 ft. deep, drains N.15°E.
- 45.00 Recross wash, drains N.15°W.
- 48.00 Leave foot of ridge, brs. S. and NE.
- 50.15 Wagon road, brs. NE. and SW.
- 52.00 Wash, 10 lks. wide, 4 ft. deep, drains NE.
- 53.50 Enter dense timber, and leave undergrowth of sagebrush and grass.
- 80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 9, 10, 15 and 16, marked on brass cap

T 31 S S 9 in NW

R 17 W S 10 in NE

S 15 in SE. and

S 16 in SW. quadrants; from which

A pine, 8 ins. in dia., brs. N.54°W., 1.19 chs. dist., marked T 31 S R 17 W S 9 B T

A cedar, 8 ins. in dia., brs. N.11°05'E., 60 lks. dist., marked T 31 S R 17 W S 10 B T

A pine, 15 ins. in dia., brs. S.38°35'E., 73 lks. dist., marked T 31 S R 17 W S 15 B T

A pine, 8 ins. in dia., brs. S.76°20'W., 62 lks. dist., marked T 31 S R 17 W S 16 B T

Land, mountainous and rolling.

Soil, rocky and gravelly loam, 6 to 8 ins. deep, on a subsoil of cemented clay, 2nd & 4th rates.

Timber, cedars and pinon pine.

Undergrowth of scattering sagebrush and grass.

Mountainous land, 40.00 chs.

Nov. 9, 1910.

Nov. 10: At 8h 44m a.m., l.m.t., I set off 38°08' on the lat. arc; 17°00'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 9, 10, 15 and 16.

Thence I run

Subdivision of T.31 S., R.17 W.

Chains. N.89°53'E.on a random line bet.secs.10 and 15,  
 40.00 Set temp.  $\frac{1}{4}$  sec.cor.  
 79.86 Intersect N.and S.line 7 lks.S.of cor.of secs.10,11,14  
 and 15. Thence I run  
 S.89°50'W.on a true line bet.secs.10 and 15,  
 Over rolling land; through dense timber.  
 Ascend slightly.  
 22.00 Top of ascent, 30 ft.above sec.cor., brs.N.and S.  
 Descend slightly.  
 33.70 Wash, 10 lks.wide, 2 ft.deep, 10 ft.below point of de-  
 scent, drains S.60° E.  
 39.93 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the  
 ground, for  $\frac{1}{4}$  sec.cor., marked on brass cap  $\frac{1}{4}$  S 10 in  
 N.half, and S 15 in S.half; from which  
 A pine, 12 ins.in dia., brs.N.86°E.29 lks.dist.  
 marked  $\frac{1}{4}$  S 10 B T  
 A pine, 12 ins.in dia., brs.S.13°30'E.41 lks.  
 dist., marked  $\frac{1}{4}$  S 15 B T  
 Nov.10: At this cor.I set off 17°03'S.on the decl.arc;  
 and at 11h 44m a.m.l.m.t., observe the sun on the me-  
 ridian, the resulting lat.is 37°08'  
 79.86 The cor.of secs.9,10,15, and 16.  
 Land, rolling.  
 Soil, gravelly loam, 6 to 8 ins.deep, on a subsoil of  
 cemented clay and gravel, 2nd and 3rd rate.  
 Timber, cedars and pinon pine.  
 No undergrowth.

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N.0° 02'W.bet.secs.9 and 10,  
 Over rolling land; through dense timber, no undergrowth.  
 14.80 Wash, 6 lks.wide, 1 ft.deep, drains NE.  
 40.00 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the  
 ground, for  $\frac{1}{4}$  sec.cor., marked on brass cap  $\frac{1}{4}$  S 9 in  
 W.half, and S 10 in E.half; from which  
 A pine, 8 ins.in dia., brs.S.59°50'W.91 lks.dist.

Subdivision of T.31 S., R.17 W.

Chains.

marked  $\frac{1}{4}$  S 9 B T

A pine, 14 ins.in dia., brs.N.29°35'E.53 lks.

dist., marked  $\frac{1}{4}$  S 10 B T

Land, rolling.

Soil, gravelly loam, 6 to 8 ins.deep, on a subsoil of cemented clay, 2nd and 3rd rate.

Timber, cedars and pinon pine.

No undergrowth. Nov.10, 1910.

Nov.11: At 8h 44m a.m.l.m.t., I set off 38° 08' on the lat.arc; 17° 17'S.on the decl.arc; and determine a meridian with the solar at the  $\frac{1}{4}$  sec.cor.bet.secs.9 and 10.

Thence I run

N.0°02'W.bet.secs.9 and 10,

Over rolling land; through dense timber, no undergrowth.

50.30 Wash, 40 lks.wide, 1 ft.deep, drains NF.

57.20 Wash, 10 lks.wide, 1 ft.deep, drains N.80° E.

61.50 Wash, 20 lks.wide, 1 ft.deep, drains E.

72.00 Wash, 15 lks.wide, 1 ft.deep, drains NF.

80.00 Set an iron post 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for cor.of secs.3,4,9, and 10, marked on brass cap

T 31 S S 4 in NW.

R 17 W S 3 in NF.

S 10 in SE.; and

S 9 in SW.quadrants; from which

A pine, 6 ins.in dia., brs.N.61°30'W.71 lks.dist.  
marked T 31 S R 17 W S 4 B T

A pine, 6 ins.in dia., brs.N.62°50'E.52 lks.dist.  
marked T 31 S R 17 W S 3 B T

A pine, 14 ins.in dia., brs.S.25°30'E.,1.27 chs.  
dist., marked T 31 S R 17 W S 10 B T

A pine, 6 ins.in dia., brs.S.25° 55'W., 39 lks.  
dist., marked T 31 S R 17 W S 9 B T

Land, rolling.

Subdivision of T.31 S., R.17 W.

Chains. Soil, gravelly loam, 6 to 8 ins. deep, on a subsoil of cemented clay and gravel, 2nd and 3rd rate.

Timber, cedars and pinon pine.

No undergrowth.

Nov. 11: At this cor. I set off 17°20'S. on the decl. arc; and at 11h 44m a.m. l.m.t., observe the sun on the meridian; the resulting lat. is 38°09'

N. 89° 50' E. on a random line bet. secs. 3 and 10,

40.00 Set temp, 1/4 sec. cor.

79.78 Intersect N. and S. line 9 lks. S. of cor. of secs. 2, 3, 10, and 11.

Thence I run

S. 89° 46' W. on a true line bet. secs. 3 and 10,

Over rolling land; through dense timber, no undergrowth. Ascend.

4.00 Top of ascent, 20 ft. above sec. cor., brs. N.E. and SW.

39.89 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for 1/4 sec. cor., marked on brass cap 1/4 S 3 on N. half, and S 10 in S. half; from which

A pine, 8 ins. in dia., brs. N. 33° 20' W. 21 lks. dist., marked 1/4 S 3 B T

A pine, 10 ins. in dia., brs. S. 56° 45' W. 39 lks. dist., marked 1/4 S 10 B T

79.78 The cor. of secs. 3, 4, 9, and 10.

Land, rolling.

Soil, gravelly loam 6 to 8 ins. deep, on a subsoil of cemented clay and gravel, 2nd and 3rd rate.

Timber, cedars and pinon pine.

No undergrowth.

Nov. 11, 1910.

Subdivision of T.31 S., R.17 W.

Chains

Nov.12: At 8h 44m a.m.l.m.t., I set off 38° 09' on the lat.arc; 17° 33'S.on the decl.arc; and determine a meridian with the solar at the cor.of secs.3,4,9, and 10.

Thence I run

N.0° 02'W.bet.secs.3 and 4,

Over rolling land; through timber; no undergrowth.

22.30 Wash, 20 lks.wide, 2 ft.deep, drains E.  
Ascend.

27.25 Top of ascent, 65 ft.above wash, brs.NE. & SW.  
Thence over rolling land.

40.00 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for 1/4 sec.cor., marked on brass cap 1/4 S 4 in W.half, and S 3 in E.half; from which

A pine, 6 ins.in dia., brs.S.19° W. 90 lks.dist.  
marked 1/4 S 4 B T

A pine, 6 ins.in dia., brs.N.40° 50'E., 78 lks.  
dist., marked 1/4 S 3 B T

Nov.12: At this cor.I set off 17°36'S.on the decl.arc; and at 11h 44m a.m.l.m.t., observe the sun on the meridian; the resulting lat.is 38° 09'

Note: For reasons already given in notes of E.bdy.of this township, bet.secs.1 and 6,

Dec.6, 1910, I run this line from the 1/4 sec.cor.as follows:

N.0°02'W.bet.secs.3 and 4,

80.00 Descend into wash, brs.NE. and SW.

94.25 Wash, 20 lks.wide, 2 ft.deep, 30 ft.below top of descent, drains NE.

95.35 Wash, 5 lks.wide, 4 ft.deep, 50 ft.below top of descent, drains SE.

96.10 Old wagon road, brs.NE. and SW.

111.27 Intersect Sixth Standard Parallel South, 8.99 chs.W.of St.cor.cf secs.33 and 34, heretofore described.

Set an iron post, 3 ft.long, 2 ins.in dia., 24 ins.in

Subdivision of T.31 S., R.17 W.

Chains.

the ground, for closing cor.of secs.3 and 4, marked on brass cap

C C T 30 S R 17 W S 33 S 34 in N.half,

S 3 in SE.; and

S 4 in SW.quadrants; from which

A cedar, 8 ins.in dia., brs.S.69° 15'E.24 lks.

dist., marked C C T 31 S R 17 W S 3 B T

A pine, 8 ins.in dia., brs.S.62°20'W.44 lks.

dist., marked C C T 31 S R 17 W S 4 B T

Land, rolling.

Soil, gravelly loam, 6 to 8 ins.deep, on a subsoil of cemented clay, 2nd and 3rd rates.

Timber, dense cedars and pinon pine.

No undergrowth.

December 6, 1910.

*Ralph Gentry*  
Instrumentman G.L.O.

November 7,8, and 9, I run the lines bet.secs.32 and 33 28 and 33.

I find that sec.33 does not close within limits in distance; I rechain bet.secs.28 and 33, and this chaining checks with the first; therefore, I conclude the error must be in the S.bdy.of sec.33.

November 10, 1910: At 10h 00m a.m.l.m.t., I set off 38° 04' on the lat.arc; 17° 01'S.on the decl.arc; and determine a meridian with the solar at the cor.of secs. 3,4,33, and 34, on the S.bdy.of the Tp., which is a gray porphyry stone 8 x 6 x 6 ins.firmly set in the ground, marked and witnessed as described by the surveyor general.

Thence I retrace

N.89° 53'W.on the S.bdy.of sec.33; at 41.80 chs.fall

1 lks.S.of the  $\frac{1}{4}$  sec.cor., which is a dark porphyry

Subdivision of T.31 S., R.17 W.

Chains.

stone 10 x 5 x 6 ins. firmly set in the ground, marked and witnessed as described by the surveyor general. This cor. has been moved W. from original place, and is located on W. slope of ridge, which bears N. and S.; at 22.54 chs. fall 2 lks. S. of the cor. of secs. 4, 5, 32, and 33 on S. bdy. of the Tp, which is a trachyte stone 6 x 10 x 2 ins. above ground, rkd. and witnessed as described by the surveyor general; consequently the S. bdy. of sec. 33 bears N. 89° 52' W.

November 10, 1910.

November 11, 1910: At 9h 00m a.m. l.m.t., I set off 38° 05' on the lat. arc; 17° 17' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs 27, 28, 33, and 34.

Thence I run

West, on Sectional Correction Line bet. secs. 28 and 33, Over rough mountainous land; through timber of yellow pine and mahogany; ascend.

- 6.50 Top of steep ridge, bears N. and S., 145 ft. above sec. cor. Descend.
- 26.15 Ravine, course N., 395 ft. below top of ridge. Ascend.
- 31.30 Top of ridge, bears N. and S., 116 ft. above ravine.
- 34.00 Ravine, course NE., 54 ft. below top of ridge. Ascend.
- 40.34 Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in the ground, to split rock, mound of stone around post, for  $\frac{1}{2}$  sec. cor., marked  $\frac{1}{2}$  S 28 on N. half and S 33 on S. half; from which
  - A mahogany, 6 ins. diam., bears N. 30° 38' W., 38 lks. dist., marked  $\frac{1}{2}$  S 28 R T
  - A glass pine, 6 ins. diam., bears S. 61° 12' E., 30 lks. dist., marked  $\frac{1}{2}$  S 33 R T

Subdivision of T.31 S., R.17 W.

Chains.	Enter scattering quaking asp. Ascend.
50.00	Leave scattering quaking asp; enter heavy pine and mahogany bears NW. and SE. Very rough and rocky porphyry dike, bears N.80° W. and S.80° E.
56.00	Top of large mountain, bears N. and S., 502 ft. above $\frac{1}{4}$ sec. cor. Descend.
68.00	Rock slide, bears NW. and SE., 4 chs. wide, composed of volcanic rock.
70.00	Ravine, course N., 376 ft. below top of mountain. Ascend.
75.00	Top of spur, bears N. and S., 225 ft. above ravine.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 15 ins. in the ground, to solid rock, mound of stone around post, for cor. of secs. 28, 29, 32, and 33, marked on brass cap T 31 S S 29 in NW. R 17 W S 28 in NE. S 33 in SE.; and S 32 in SW. quadrant; from which A yellow pine, 10 ins. diam., bears N. 16° 48' E., 44 lks. dist., marked T 31 S R 17 W S 28 B T A yellow pine, 8 ins. dia., bears N. 15° 30' W., 64 lks. dist., marked T 31 S R 17 W S 29 B T A yellow pine, 24 ins. diam., bears S. 14° 45' W. 1.16 chs. dist., marked T 31 S R 17 W S 32 B T A yellow pine, 8 ins. diam., bears S. 65° 00' E. 55 lks. dist., marked T 31 S R 17 W S 33 B T
	Land, rough, mountainous. Soil, rocky; 4th rate. Timber, heavy yellow pine, mahogany and scattering quaking asp; undergrowth, scattering sagebrush.

Subdivision of T.31 S., R.17 W.

Chains.

Thence I run

S.0° 03'E.bet.secs.32 and 33,

Over very rough mountainous land; ascend through yellow pine and mahogany.

5.00 Top of spur, bears E. and W.

Descend.

13.00 Ravine, course W.

Ascend.

17.00 Top of spur, bears E. and W., 64 ft.above ravine, composed of large igneous boulders; very rough;descend.

33.50 Bottom of ravine, course W., 250 ft.below top of spur.

Ascend.

39.50 Top of spur, bears E. and W., 55 ft.above ravine.

Descend.

40.00 Set an iron post, 3 ft.long, 1 in.in dia., 20 ins.in the ground to solid rock, for  $\frac{1}{4}$  sec.cor., marked on brass cap  $\frac{1}{4}$  S 32 on W.half, and S 33 on E.half;from which

A pinon pine, 6 ins.diam.bears S.61°26'W.20 lks. dist., marked  $\frac{1}{4}$  S 32 B T

A pinon pine, 15 ins.diam., bears S.50° 30'E.21 lks.dist., marked  $\frac{1}{4}$  S 33 B T

Descend.

48.00 Bottom of ravine, course W., 100 ft.below  $\frac{1}{4}$  sec.cor.

Dense mahogany 10 ft.in height; ascend.

55.00 Top of spur, bears E. and W., 165 ft.above ravine.

Descend.

64.00 Bottom of ravine, course W., 140 ft.below top of spur.

Ascend over rough rock slide of volcanic rock, 5 chs. wide, bears E. and W.

68.50 Top of spur, brs.E. and W., 55 ft.above ravine.

Descend.

78.50 Ravine, course S.15° W. Ascend gently.

80.00 Intersect S.bdy.of Tp. 2.54 chs.E.of cor.of secs. 4,5, 32 and 33, heretofore described.

Subdivision of T. 31 S., R. 17 E.

Chains.

Set an iron post 3 ft. long, 2 ins. in dia., 12 ins. in the ground, to solid rock, mound of stone around post, for closing cor. of secs. 32 and 33, marked on trees cap

T 31 S R 17 W S 32 S 33 on N. half,

C C S 4 S 5 T 32 S on S. half; from which

A pinon pine, 6 ins. diam., bears N. 78° 11' W., 59 lks. dist., marked C C T 31 S R 17 W S 32 B T

A pinon pine, 6 ins. diam., bears N. 57° 57' E., 4 lks. dist., marked C C T 31 S R 17 W S 33 B T

I destroy the marks on the cor. of secs. 4, 5, 32, and 33 that pertain to secs. 32 and 33.

Land, very rough, mountainous.

Soil, rocky; 4th rate.

Timber, yellow pine, pinon pine, cedar, and mahogany.

Undergrowth, scattering sagebrush and scrub mahogany 3 to 5 ft. in height.

Nov. 11, 1910: At 3h 00m p.m. l.m.t., I set off 38° 05' on the lat. arc; 17° 21' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 28, 29, 32, and 33.

Thence I run

N. 0° 03' W. bet. secs. 28 and 29,

Over rough mountainous land; through timber of pine and quaking asp with undergrowth of scrub mahogany 4 to 6 ft. in height.

Descend.

16.00 Bottom of ravine, course W., 396 ft. below sec. cor.

Ascend.

18.00 Top of rough ledge, bears E. and W., 36 ft. above ravine.

Descend.

22.00 Wash, 10 lks. wide, 2 ft. deep, course W., located in bottom of canyon, 152 ft. below top of rough ledge.

Subdivision of T.31 S., R.17 W.

Chains.

Ascend on steep and very rough slope of spur.

38.50

Top of ridge, bears NW. and SE., 382 ft.above wash.  
Descend.

40.00

Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the  
ground, for  $\frac{1}{4}$  sec.cor., marked on brass cap  $\frac{1}{4}$  S 29 on  
W.half, and S 28 on E.half;from which

A pinon pine, 6 ins.diam. bears S.89°35'E. 93  
lks.dist., marked  $\frac{1}{4}$  S 28 B T

A pinon pine, 8 ins.diam., bears S.49° 52'W.1.52  
chs.dist., marked  $\frac{1}{4}$  S 29 B T

Nov.11, 1910.

November 12, 1910: At 9h 00m a.m.l.m.t., I set off 38°  
05'on the lat.arc; 17°33'S.on the decl.arc; and de-  
termine a meridian with the solar at the  $\frac{1}{4}$  sec.cor.  
bet.secs.28 and 29.

Thence I continue,

N.0° 03'W.bet.secs.28 and 29,

Descend.

48.00

Bottom of ravine, course S.60° E., 182 ft.below  $\frac{1}{4}$  sec.  
cor.

Ascend.

57.00

Top of ridge, bears E.and W.196 ft.above ravine;enter  
dense undergrowth of mahogany, 4 to 6 ft.in height.

Descend.

62.50

Bottom of ravine, course NE., 94 ft.below top of  
ridge.

Ascend.

65.00

Top of small spur, bears NE. and SW.

Descend.

71.00

Bottom of ravine, course NE. Ascend.

77.00

Wash, 10 lks.wide, 2 ft.deep, course SE.

Ascend.

80.00

Set an iron post, 3 ft.long, 2 ins.in dia., 24 ins.in  
the ground, for cor.of secs.20,21,28, and 29,marked  
on brass cap

Subdivision of T.31 S., R.17 W.

Chains.

T 31 S S 20 in NW.

R 17 W S 21 in NE.

S 28 in SE.; and

S 29 in SW.quadrant; from which

A pinon pine, 6 ins.diam., bears N.74°48'W. 31 lks.dist., marked T 31 S R 17 W S 20 B T

A pinon pine, 12 ins.diam., bears N.66°58'E.1.00 ch.dist., marked T 31 S R 17 W S 21 B T

A pinon pine, 8 ins.diam., bears S.10°35'E., 1.44 chs.dist., marked T 31 S R 17 W S 28 B T

A pine, 8 ins.diam., bears S.39°40'W., 94 lks. dist., marked T 31 S R 17 W S 29 B T

100 ft.above wash.

Land, rough, mountainous.

Soil, gravelly loam and rocky; 3rd and 4th rate.

Timber, cedar and pinon pine.

Undergrowth, scattering sagebrush and scrub mahogany 4 to 10 ft.in height.

Nov.12: At 11h 44m a.m.l.m.t., I set off 17° 36'S.on the decl.arc; and observe the sun on the meridian;the resulting lat.is 38° 06'

Thence I run

S.89°58'E.on a random line bet.secs.21 & 28,

40.00 Set temp.  $\frac{1}{4}$  sec.cor.

November 12, 1910.

November 15, 1910: Sky overcast,observation impossible.

79.96 Intersect N.and S.line 14 lks.N.of cor.of secs.21,22, 27, and 28.

Nov.15: At 10h 00m a.m.l.m.t., I set off 38° 06' on the lat.arc; 18°22'S.on the decl.arc; and determine a meridian at cor.of secs.21,22,27, and 28.

Thence I run

N.89°52'W.on a true line bet.secs.21 and 28,

Subdivision of T.31 S., R.17 W.

Chains	Over rolling, mountainous land; through heavy cedar and pinon pine, and a few scattering yellow pine. Ascend gently.
18.00	Foot of rocky spur, bears N. and S.
21.35	Wash, 10 lks. wide, 2 ft. deep, course SE. Ascend.
23.00	Top of ascent, bears NW. and SE. Descend.
24.00	Wash, 15 lks. wide, 1½ ft. deep, course SE. Ascend.
36.00	Top of ridge, bears N. and S., 240 ft. above wash. Descend.
38.50	Wash, 8 lks. wide, 1 ft. deep, course SW., 48 ft. below top of ridge. Ascend.
39.98	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 21 on N. half, and S 28 on S. half; from which A cedar, 8 ins. diam. bears N. 32° 52' W. 63 lks. dist. marked ¼ S 21 B T A yellow pine, 18 ins. diam. bears S. 33° 41' W. 41 lks. dist., marked ¼ S 28 B T Ascend.
44.00	Top of small ridge, bears NE. and SW., 30 ft. above ¼ sec. cor. Descend.
49.50	Wash, 10 lks. wide, 1 ft. deep, course NE. Ascend gently.
55.50	Wash, 5 lks. wide, 1 ft. deep, course NE.
74.50	Top of ridge, bears NW. and SE., 420 ft. above wash. Descend.
79.96	The cor. of secs. 20, 21, 28, and 29. Land, rolling, mountainous. Soil, gravelly loam and rocky; 3rd and 4th rate. Timber, heavy cedar, pinon pine, and scattering yellow

Subdivision of T.31 S., R.17 W.

Chains.

pine. The yellow pine is of considerable size. Undergrowth, scattering sagebrush and scrub mahogany 4 to 6 ft.in height.

November 15, 1910.

November 16, 1910: At 9h 00m a.m.l.m.t., I set off 38° 06' on the lat.arc; 18°36'S.on the decl.arc; and determine a meridian with the solar at the cor.of secs.20, 21,28, and 29.

Thence I run

N.0°03'W.bet.secs.20 and 21,

Over rolling mountainous land; through dense cedar and pinon pine.

Ascend.

8.50 Top of ridge, bears SE. and NW., 245 ft.above sec.cor.; enter dense mahogany, 10 ft.in height, bears E.and W.

Descend.

16.00 Bottom of ravine, course E., 132 ft.below top of ridge.

Ascend.

20.00 Top of ridge, bears E. and W., 18 ft.above ravine.

Descend.

39.00 Wash in bottom of ravine, 10 lks.wide, 1 ft.deep, course NE., 356 ft.below top of ridge. Ascend.

40.00 Set an iron post, 3 ft.long, 1 in.in dia., 26 ins.in the ground, for  $\frac{1}{4}$  sec.cor., marked on brass cap  $\frac{1}{4}$  S 20 on W.half, and S 21 on E.half; from which

A pinon pine, 8 ins.diam., bears S.86°48'W., 36 lks.dist., marked  $\frac{1}{4}$  S 20 B T

A pinon pine, 6 ins.diam., bears S.44° 34'E., 40 lks.dist., marked  $\frac{1}{4}$  S 21 B T

18 ft.above wash.

November 16: At 11h 44m a.m.l.m.t., I set off 18° 39'S. on the decl.arc; and observe the sun on the meridian; the resulting lat.is 38° 06'

Subdivision of T.31 S., R.17 W.

Chains..

- 47.00 Top of stony ridge, bears E. and W., 127 ft. above  $\frac{1}{4}$  sec. cor.  
Descend.
  - 51.00 Wash, 10 lks. wide, 1 ft. deep, course SE., 42 ft. below top of ridge.  
Ascend.
  - 58.75 Top of ridge, bears E. and W., 156 ft. above wash; gray igneous rock exposed on surface.  
Descend.
  - 73.75 Wash, 10 lks. wide, 2 ft. deep, course NE. 374 ft. below top of ridge.  
Timber becomes less dense.
  - 89.00 Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 16, 17, 20, and 21, marked on brass cap
    - T 31 S S 17 in NW.
    - R 17 W S 16 in NE.
    - S 21 in SE.; and
    - S 20 in SW. quadrant; from which
    - A pinon pine, 12 ins. diam., bears N. 17° 56' E., 1.16 chs. dist., marked T 31 S R 17 W S 16 B T
    - A pinon pine, 6 ins. diam., bears N. 60° 35' W., 95 lks. dist., marked T 31 S R 17 W S 17 B T
    - A pinon pine, 6 ins. diam., bears S. 52° 20' W., 1.02 chs. dist., marked T 31 S R 17 W S 20 B T
    - A pinon pine, 6 ins. diam., bears S. 33° 15' E., 91 lks. dist., marked T 31 S R 17 W S 21 B T
- Cor. is located 16 ft. above wash.  
Land, rolling, mountainous.  
Soil, gravelly loam and rocky; 3rd and 4th rate.  
Timber, cedar, pinon pine and scattering yellow pine.  
Undergrowth, scattering sagebrush 18 ins. in height, and scrub mahogany 4 to 10 ft. in height.

November 16, 1910.

Subdivision of T. 31 S., R. 17 W.

Chains

November 17: At 8h 00m a.m.l.m.t., I set off 38°07' on the lat. arc; 18°49'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 16, 17, 20 and 21.

Thence I run

S.89°52'E. on a random line bet. secs. 16 and 21.

40.00 Set temp. 1/4 sec. cor.

79.67 Intersect N. and S. line 11 lks. S. of the cor. of secs. 15, 16, 21 and 22.

November 17: At 11h 45m a.m.l.m.t., I set off 18°54'S. on the decl. arc; and observe the sun on the meridian at the cor. of secs. 15, 16, 21 and 22, the resulting lat. is 38°06'

Thence I run

N.89°57'W. on a true line bet. secs. 16 and 21

Over rolling mountainous land; through cedar and pinon pine with undergrowth of scrub mahogany 4 to 6 ft. in height, and scattering sagebrush. Ascend gently.

17.67 Top of small ridge, bears NE. and SW.; 88 ft. above sec. cor.

Descend.

21.00 Wash, 10 lks. wide, 2 ft. deep, course S.75°E.; ascend.

32.00 Top of small ridge, bears N. and S.; 94 ft. above wash; descend gently.

39.83 1/2 Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap 1/4 S 16 on N half and S 21 on S half; from which

A pinon pine, 12 ins.diam., brs. N.18°45'E., 11 lks. dist., marked 1/4 S 16 B T

A pinon pine, 6 ins.diam., bears S.3°30'E., 37 lks. dist., marked 1/4 S 21 B T

Ascend gently.

46.67 Top of ridge, bears N. and S., 88 ft. above 1/2 sec. cor. Descend.

52.00 Wash, 5 lks. wide, 1 ft. deep, course N., 84 ft. below

Subdivision of T. 51 S., R. 17 W.

Chains

- ridge. Ascend.
- 53.00 Top of small ascent, bears N. and S. Descend.
- 55.00 Wash, 5 lks. wide, 18 ins. deep, course N. Ascend.
- 68.00 Top of spur, bears N. and S., 184 ft. above wash.  
Descend.
- 75.67 Wash, 10 lks. wide, 2 ft. deep, course NE.  
Ascend.
- 79.67 The cor. of secs. 16, 17, 20 and 21, 65 ft. above wash.  
Land, rolling mountainous.  
Soil, gravelly loam, 3rd rate.  
Timber, heavy cedar and pinon pine.  
Undergrowth, scrub mahogany 6 to 8 ft. in height and  
scattering sagebrush.  
Chas. Merrill, flagman, is transferred to Gentry's party  
as rear chainman, I appoint William Malcolm to take  
his place.

November 17, 1910.

November 19, 1910: At 9h 00m a.m., l.m.t., I set off  
38°07' on the lat. arc; 19°20'S. on the decl. arc;  
and determine a meridian with the solar at the cor. of  
secs. 16, 17, 20 and 21.

Thence I run

N.0°03'W. bet. secs. 16 and 17.

Over rolling mountainous land; through cedar and pinon  
pine with undergrowth of scrub mahogany and sagebrush.  
Ascend gently.

- 1.38 Rock slide on E. slope of ridge, bears E. and W., com-  
posed of igneous rock and is 1 ch. wide.

Descend gently.

- 5.00 Wash, 5 lks. wide, 1 ft. deep, course E., 38 ft. below  
rock slide.

Ascend gently.

- 8.00 Top of small ridge, bears E. and W.

Descend.

## Subdivision of T.37 S.R.17 W.

Chains.	
12.00	Wash, 5 lks.wide, 2 ft.deep, course NE., 44 ft.below top of ridge. Ascend.
15.00	Top of east slope of small spur; descend through less dense timber.
28.00	Wash, 5 lks.wide, 1 ft.deep, course E., 109 ft.below top of spur. Ascend.
34.00	Top of small ridge, bears E. and W. Descend.
39.00	Wash, 15 lks.wide, 4 ft.deep, course NE. Ascend.
40.00	Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for $\frac{1}{4}$ sec.cor., marked on brass cap $\frac{1}{4}$ S 17 on W.half, and S 16 on E.half; from which A pinon pine, 8 ins.diam., bears N.69° 55'E., 98 lks.dist., marked $\frac{1}{4}$ S 16 B T A pinon pine, 8 ins.diam., bears N.51° 32'W., 95 lks.dist., marked $\frac{1}{4}$ S 17 B T November 19: At 12 noon, l.m.t., sky is overcast, observation impossible; timber becomes more scattering. $\frac{1}{4}$ sec.cor.is 13 ft.above wash. Ascend gently.
46.00	Top of ridge (divide) bears NE. and SW., 12 ft.above $\frac{1}{4}$ sec.cor. At this point the slope of the land changes from SE. to NW. Descend.
54.12	Wagon road to Lund, Utah; bears NW. and SE.
55.30	Wash, 8 lks.wide, 2 ft.deep, course NW., 60 ft.below top of ridge. Ascend gently.
75.00	Top of small ridge, bears E. and W., 10 ft.above wash. Descend.
76.50	Wash, 8 lks.wide, 1 ft.deep, course NW., 26 ft.below top of ridge.
80.00	Set an iron post 3 ft.long, 2 ins.in dia., 24 ins.in the

Subdivision of T.31 S., R.17 W.

Chains.

ground, for cor. of secs. 8, 9, 16, and 17, marked on brass cap

T 31 S S 8 in NW.

R 17 W S 9 in NE.

S 6 in SE.; and

S 17 in SW. quadrant; from which

A pinon pine, 6 ins. diam., bears N. 13° 04' W. 92 lks. dist., marked T 31 S R 17 W S 8 B T

A pinon pine, 6 ins. diam., bears N. 70° 19' E., 28 lks. dist., marked T 31 S R 17 W S 9 B T

A pinon pine, 8 ins. diam., bears S. 19° 05' E., 76 lks. dist., marked T 31 S R 17 W S 16 B T

A cedar, 12 ins. diam., bears S. 77° 58' W., 61 lks. dist., marked T 31 S R 17 W S 17 B T

Land, rolling, mountainous.

Soil, gravelly loam; 3rd rate.

Timber, cedar and pinon pine; undergrowth sagebrush.

November 19, 1910.

November 21, 1910: At 9h 00m a.m. l.m.t., I set off 38° 08' on the lat. arc; 19° 48' S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 8, 9, 16, and 17.

Thence I run

S. 89° 57' E. on a random line bet. secs. 9 and 16,

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

79.78 Intersect N. and S. line 1.1k. N. of cor. of secs. 9, 10, 15, and 16.

Nov. 21: At 11 h. 45m a.m. l.m.t., I set off 19° 50' S. on the decl. arc; and observe the sun on the meridian; the resulting lat. is 38° 07'

Thence I run

N. 89° 57' W. on a true line bet. secs. 9 and 16,

Over rolling mountainous land; through heavy cedar and pinon pine.

Subdivision of T.31 S., R.17 W.

Chains.

Ascend.

18.00 Ledge, 45 ft.in height, bears N.and S.

20.00 Top of ridge, bears NE. and SW., 300 ft.above sec.cor.  
Descend.

25.00 Bottom of ravine, course N.  
Ascend.

39.89 Set an iron post, 3 ft.long, 1 in.in dia., 18 ins.in the  
ground to solid rock, mound of stone around post, for  
 $\frac{1}{4}$  sec.cor., marked on brass cap  $\frac{1}{4}$  S 9 on N.half, and  
S 16 on S.half; from which

A pinon pine, 12 ins.diam., bears N.4° 24'W. 26  
lks.dist., marked  $\frac{1}{4}$  S 9 B T

A pinon pine, 12 ins.diam., bears S.51° 46'W. 42  
lks.dist., marked  $\frac{1}{4}$  S 16 B T

This cor.is located on N.slope of volcanic cone, the  
top of which is located about 20 chs.S.of cor.  
Descend.

45.00 Ledge, 20 ft.in height, bears NE. and SW.  
Descend.

56.00 Wash, 5 lks.wide, 3 ft.deep, course N.10° E., 292 ft.  
below  $\frac{1}{4}$  sec.cor.

68.50 Wash, 10 lks.wide, 18 ins.deep, course NE.  
Ascend.

74.78 Top of ridge, bears NE. and SW., 42 ft.above wash.  
Descend.

79.78 The cor.of secs.8,9,16, and 17, 38 ft,below top of  
ridge.

Land, rolling, mountainous.  
Soil, gravelly loam and rocky; 3rd and 4th rates.  
Timber, dense cedar and pinon pine.  
Undergrowth, scrub sagebrush.

N.0° 03'W.bet.secs.8 and 9,  
Over rolling, mountainous land; through dense cedar and

Subdivision of T.31 S., R.17 W.

Chains.      pinon pine with undergrowth of sagebrush.  
 Descend.

4.00      Leave dense; enter scattering timber, bears NE. and SW.

20.00      Wash, 8 lks.wide, 1 ft.deep; course NE., 56 ft.below  
             sec.cor.  
             Ascend gently.

28.00      Top of ascent, bears NE. and SW., 8 ft.above wash.

36.80      Wash, 20 lks.wide, 3½ ft.deep, course N.60° E., 158 ft.  
             below top of ascent.  
             Ascend.

40.00      Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the  
             ground, for ¼ sec.cor., marked on brass cap ¼ S 8 on  
             W.half, and S 9 on E.half; from which  
                     A pinon pine, 6 ins.diam., bears S.25° 22'W., 57  
                     lks.dist., marked ¼ S 8 B T  
                     A cedar, 6 ins.diam., bears N.56°52'E., 58 lks.  
                     dist., marked ¼ S 9 B T

November 21, 1910.

November 22, 1910: At 9h 00m a.m.l.m.t., I set off 38°  
 08' on the lat.arc; 20° 01'S.on the decl.arc; and  
 determine a meridian with the solar at the ¼ sec.cor.  
 bet.secs.8 and 9.

Thence I continue  
             N.0° 03'W. bet.secs.8 and 9,  
 Ascend.

43.00      Top of ridge, bears E.and W.,24 ft.above ¼ sec.cor.  
 Descend.

56.00      Wash, 8 lks.wide, 1 ft.deep, course E., 22 ft.below  
             top of ridge.  
             Leave scattering; enter heavy timber, bears E.and W.  
             Ascend gently.

58.00      Top of ascent, bears E. and W., 10 ft.above wash.  
 Descend.

64.75      Wash, 10 lks.wide, 1 ft.deep, course NE., 28 ft.below  
             top of ascent.

Subdivision of T.31 S., R.17 W.

Chains.

Ascend gently.

70.60

Wash, 10 lks.wide, 2 ft.deep, course S.75° E.

Ascend gently.

80.00

Set an iron post 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for cor.of secs.4,5,8, and 9, marked on brass cap

T 31 S S 5 in NW.

R 17 W S 4 in NE.

S 9 in SE.; and

S 8 in SW.quadrant; from which

A cedar, 10 ins.diam., bears N.11° 41'E., 88 lks. dist., marked T 31 S R 17 W S 4 B T

A pinon pine, 10 ins.diam., bears N.30° 25'W., 96 lks.dist., marked T 31 S R 17 W S 5 B T

A cedar, 6 ins.diam., bears S.18° 48'W., 84 lks. dist., marked T 31 S R 17 W S 8 B T

A cedar, 6 ins.diam., bears S.34°18'E., 63 lks. dist., marked T 31 S R 17 W S 9 B T

50 ft.above wash.

Land, rolling.

Soil, sandy loam and gravelly; 2nd and 3rd rate.

Timber, dense cedar and pinon pine 60 chs.; scattering timber 20 chs.

Undergrowth, sagebrush.

S.89° 57'E.on a random line bet.secs.4 and 9,

40.00

Set temp.  $\frac{1}{4}$  sec.cor.

79.80

Intersect N.and S.line 13 lks.S.of cor.of secs.3,4,9, and 10.

Nov.22: At 11h.46m a.m.l.m.t., I set off 20° 03'S.on the decl.arc; and observe the sun on.the meridian; the resulting lat.is 38° 09'

Thence I run

S.89°57'W.on a true line bet.secs.4 and 9,

Over rolling land; through heavy cedar and pinon pine

## Subdivision of T.31 S., R.17 W.

Chains	
	and undergrowth of sagebrush.
	Ascend gently.
16.80	Top of small ridge, bears N. and S., 30 ft. above the sec. cor.
	Descend gently.
19.80	Wash, 5 lks. wide, 1 ft. deep, course N. 15° E.
	Ascend gently.
23.80	Top of ascent, bears N. and S.
	Descend.
26.00	Wash, 5 lks. wide, 1 ft. deep, course NW.
	Ascend gently.
28.00	Leave timber; enter open space, bears NE. and SW. 9 chs. wide; heavy undergrowth of sagebrush 2 to 3 ft. in height.
37.00	Leave open space; enter timber, bears NE. and SW.
39.00	Wash, 50 lks. wide, 2 ft. deep, course NE.
39.90	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 4 on N. half, and S 9 on S. half; from which
	A pinon pine, 12 ins. diam., bears N. 4° 18' W., 75 lks. dist., marked $\frac{1}{4}$ S 4 B T
	A pinon pine, 14 ins. diam., bears S. 19° 10' E. 55 lks. dist., marked $\frac{1}{4}$ S 9 B T
	Ascend.
50.00	Top of ascent, bears NE. and SW., 42 ft. above $\frac{1}{4}$ sec. cor.
	Descend.
57.50	Wash, 10 lks. wide, 3 ft. deep, course NE. 22 ft. below top of ascent.
	Ascend.
60.00	Top of ascent, bears NE. and SW., 20 ft. above wash.
	Descend.
65.00	Wash, 10 lks. wide, 2 $\frac{1}{2}$ ft. deep, course NE.; contains small stream of fresh water, which heads about 12 chs. up stream in ledge of igneous rock, exposed in wash,

Subdivision of T. 31 S., R. 17 W.

Chains

28 ft. below top of ascent.

Ascend gently.

79.80

The cor. of secs. 4, 5, 8 and 9, 88 ft. above wash.

Land, rolling mountainous.

Soil, sandy loam and gravelly 3rd and 4th rate.

Timber, heavy cedar and pinon 70 chs.

Undergrowth, scattering sagebrush; heavy sagebrush 2 to 3 ft. in height, 10 chs.

November 22, 1910.

December 8, 1910: At 9h 00m a.m., l.m.t., I set off 38° 08' on the lat. arc; 22°39'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 8 and 9.

Thence I run

N.0°03'W. bet. secs. 4 and 5.

Over gently rolling land; through cedar and pinon pine with undergrowth of sagebrush 2 ft. in height.

Descend.

7.65

Old wagon road bears NE. and SW.

13.00

Wash, 20 lks. wide, 2 ft. deep, course NE., 64 ft. below sec. cor.

Ascend.

18.00

Top of ascent, bears NE. and SW., 14 ft. above wash.

Descend.

23.25

Wash, 5 lks. wide, 1 ft. deep, course NE., 20 ft. below top of ascent.

Ascend.

40.00

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap ¼ S 5 on W half and S 4 on E half; from which

A pinon pine, 8 ins. diam., bears N.56°47'E.,

64 lks. dist., marked ¼ S 4 B T

A cedar, 10 ins. diam., bears N.72°35'W.,

17 lks. dist., marked ¼ S 5 B T

Subdivision of T. 31 S., R. 17 W.

Chains

28 ft. above wash.

Dec. 8: At 11h 52m a.m.l.m.t., I set off 22°40'S. on the decl. arc; and observe the sun on the meridian; the resulting lat. is 38°08'.

44.00 Top of ascent, bears NE. and SW.

Descend.

72.00 Bottom of depression, bears NE. and SW.

Ascend.

86.75 Top of stony ridge, bears E. and W., 66 ft. above depression.

Descend.

98.75 Wash, 20 lks. wide, 4 ft. deep, course SE., 56 ft. below point of descent.

Ascend.

111.16 Intersect 6th Standard Parallel South, 8.14 chs. W. of standard cor. of secs. 32 and 33, heretofore described.

Set an iron post, 3 ft. long, 2 ins. in dia., 18 ins. in the ground, to solid rock, mound of stone around post, for closing cor. of secs. 4 and 5, marked on brass cap

T 30 S R 17 W C C S 32 S 33 on N half and

S 4 S 5 T 31 S on S half; from which

A pinon pine, 14 ins. diam., bears S.42°21'E., 96

lks. dist., marked C C T 31 S R 17 W S 4 B T

A pinon pine, 12 ins. diam., bears S.61°49'W., 1.46

chs. dist., marked C C T 31 S R 17 W S 5 B T

Land, rolling.

Soil, sandy loam and gravelly, 2nd and 3rd rate.

Timber, dense cedar and pinon pine.

Undergrowth, sagebrush 18 ins. to 2 ft. in height.

*Eric H. Anderson*

Instrumentman G. L. O.

December 8, 1910.

Nov. 14: Snow storm and dense fog prevented work on this day.

## Subdivision of T. 31 S., R. 17 W.

## Chains

Nov. 15: Dense fog prevented work until 9h 44m a.m.,  
1.m.t., and at this time I set off  $38^{\circ}05'$  on the lat.  
arc;  $18^{\circ}22'S$ . on the decl. arc; and determine a meri-  
dian with the solar at the cor. of secs. 28, 29, 32  
and 33.

Thence I run

West on sectional correction line bet. secs. 29 and 32  
Over mountainous land; through scattering timber and  
undergrowth of sagebrush, and scattering mahogany.  
Descend mountain.

12.00 Leave undergrowth of mahogany, brs. N. and S.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S  
29 in N half and S 32 in S half; from which

A pine, 6 ins. dia., brs. N.  $56^{\circ}15'E.$ , 16  
lks. dist., marked  $\frac{1}{4}$  S 29 B T

A pine, 8 ins. in dia., brs. S.  $29^{\circ}10'E.$ , 1.08  
chs. dist., marked  $\frac{1}{2}$  S 32 B T

Nov. 15: Sky overcast, making it impossible to take  
solar observations.

Cor. is located at foot of mountain, bearing NW. and SE.  
825 ft. below sec. cor.

Descend gradually.

46.75 Wash, 10 lks. wide, 4 ft. deep, 60 ft. below  $\frac{1}{4}$  sec. cor.  
drains SW.

Ascend slightly.

57.00 Enter dense timber, brs. NE. and SW.

Leave undergrowth.

59.80 Wash, 8 lks. wide, 2 ft. deep, drains SW.

Ascend.

62.80 Top of small ridge, 20 ft. above wash, brs. NE. and SW.

Descend.

70.00 Foot of descent, 40 ft. below top of ridge, drains SW.

Ascend slightly.

76.00 Top of ascent, 10 ft. above foot, brs. N. & S.

Subdivision of T. 31 S., R. 17 W.

Chains

Descend.

78.20 Wash, 5 lks. wide, 1 ft. deep, 10 ft. below top of ascent,  
drains SW.

Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in  
the ground for cor. of secs. 29, 30, 31 and 32, marked  
on brass cap

T 31 S S 30 in NW

R 17 W S 29 in NE

S 32 in SE. and

S 31 in SW. quadrants; from which

A pine, 10 ins. in dia., brs. N.87°30'W., 34  
lks. dist., marked T 31 S R 17 W S 30 B T

A pine, 8 ins. in dia., brs. N.42°30'E., 70  
lks. dist., marked T 31 S R 17 W S 29 B T

A pine, 8 ins. in dia., brs. S.14°E., 84 lks.  
dist., marked T 31 S R 17 W S 32 B T

A pine, 12 ins. in dia., brs. S.37°20'W., 75  
lks. dist., marked T 31 S R 17 W S 31 B T

Land, mountainous, and rolling.

Soil, gravelly and rocky 3rd and 4th rate.

Timber, cedars, and pinon pine.

Undergrowth, sagebrush and scattering mahogany.

Nov. 15: At 3h p.m., l.m.t., heavy rain and dense fog  
prevented further work this day.

November 15, 1910.

Nov. 16: At 8h 45m a.m., l.m.t., set off 38°05' on the  
lat. arc; 18°36'S. on the decl. arc; and determine a  
meridian with the solar at the cor. of secs. 29, 30,  
31 and 32.

Thence I run

West on a sectional correction line bet. secs. 30 and 31.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

86.82 Intersect West bdy. of Tp. 38 lks. S. of cor. of secs.

## Subdivision of T. 31 S., R. 17 W.

## Chains

- 25, 30, 31 and 36, heretofore described.
- Thence I run  
S.89°44'E. on a true line bet. secs. 30. & 31.  
Over mountainous land; through timber and scattering  
undergrowth of sagebrush and grass.  
Ascend.
- 10.00 Top of spur, 115 ft. above sec. cor., projects S. about  
8 chs.  
Descend.
- 21.00 Foot of descent, 200 ft. below top of spur, drains S.  
Ascend.
- 34.25 Top of spur, or ridge, 85 ft. above foot of descent,  
brs. N.80°W. and SE.  
Descend.
- 46.82 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 30  
in N half and S 31 in S half; from which  
A pine, 8 ins. in dia., brs. N.34°10'E., 46  
lks. dist., marked  $\frac{1}{4}$  S 30 B T  
A pine, 10 ins. in dia., brs. S.12°E., 51  
lks. dist., marked  $\frac{1}{4}$  S 31 B T  
Nov. 16: At this cor. I set off 18°39'S. on the decl.  
arc; and at 11h 45m a.m.l.m.t., observe the sun on  
the meridian; the resulting lat. is 38°05'.
- 52.00 Wash, 15 lks. wide, 2 ft. deep, 300 ft. below top of  
ridge, drains SE.  
Ascend.
- 65.00 Top of ascent, 20 ft. above wash, brs. N. & S.  
Thence on nearly level land.
- 69.82 Descend into wash, brs. N. & S.
- 75.15 Wash, 8 lks. wide, 3 ft. deep, 100 ft. below top, drains  
SE.  
Ascend.
- 77.30 Top of spur, 40 ft. above wash, projects S. 2 chs.  
Descend.

Subdivision of T. 31 S., R. 17 W.

Chains

78.57 Wash, 10 lks. wide, 1 ft. deep, 30 ft. below top of spur drains S.

Ascend.

84.82 Top of ascent, 60 ft. above wash, brs. S.20°W. & N.20°E.

Descend.

86.82 The cor. of secs. 29, 30, 31 and 32.

Land, mountainous.

Soil, gravelly and rocky, 3rd and 4th rate.

Timber, cedars and pinon pine.

Undergrowth, scattering sagebrush and grass.

S.0°03'E. on a true line bet. secs. 31 and 32.

Over rolling land; through timber, and scattering sagebrush & grass.

14.00 Wash, 10 lks. wide, 2 ft. deep, drains SW.

Ascend.

27.50 Top of ascent, 30 ft. above wash, brs. SW.

Descend.

32.20 Bottom of depression, 75 lks. wide, 50 ft. below top of ascent, drains SW.

Ascend.

33.70 Top of ascent, 40 ft. above depression, brs. E. & W.

Thence on nearly level land.

38.75 Descend into wash, brs. NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap 1/4 S 31 in W half and S 32 in E half; from which

A pine, 6 ins. in dia., brs. S.86°45'W., 28 lks. dist., marked 1/4 S 31 B T

A pine, 6 ins. in dia., brs. N.66°30'E., 60 lks. dist., marked 1/4 S 32 B T

Nov. 16, 1910.

Nov. 17: "At 8h 45m a.m.l.m.t., I set off 38°05' on the lat. arc; 18°49'S. on the decl. arc; and determine a

Subdivision of T. 31 S., R. 17 W.

Chains

meridian with the solar at the 1/4 sec. cor., bet. secs. 31 and 32.

Thence I continue S.0°03'E. bet. secs. 31 and 32.

Over rolling land; broken by washes, and through timber and scattering undergrowth of sagebrush and grass.

40.15 Bottom of wash, 6 lks. wide, 1 ft. deep, 6 ft. below 1/4 sec. cor., drains S.60°W.

Ascend.

42.25 Top of ascent, 40 ft. above wash, brs. NE. and SW. Thence over rolling land.

61.25 Ravine, 1 ch. wide, 30 ft. deep, drains W. Thence along E. bank of main wash.

79.82 Intersect S. bdy. of Tp. 2.80 chs. S.89°54'E. of cor. of secs. 5, 6, 31 and 32, which is an igneous stone 10 x 8 x 6 ins. above the ground, marked and witnessed as described by the Surveyor General.

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for closing cor. for secs. 31 and 32, marked on brass cap

T 31 S R 17 W in N half

S 31 in NW

S 32 in NE

S 5 C C in SE. and

S 6 in SW. quadrants; from which

A pine, 8 ins. in dia., brs. N.34°15'W., 54 lks. dist., marked C C T 31 S R 17 W S 31 B T

A pine, 16 ins. in dia., brs. N.32°E., 66 lks. dist., marked C C T 31 S R 17 W S 32 B T

I destroy the marks on the cor. of secs. 5, 6, 31 and 32 that pertain to secs. 31 and 32.

Land, rolling, broken by washes and ravines.

Soil, gravelly and rocky, 3rd and 4th rates.

Timber, cedars and pinon pine.

Undergrowth of scattering sagebrush and grass.

Subdivision of T. 31 S., R. 17 W.

Chains

Nov. 17: At this cor. I set off 18°54'S. on the decl. arc., and at 11h 45m a.m.l.m.t., observe the sun on the meridian; the resulting lat. is 38°04'.

I commence at the cor. of secs. 29, 30, 31 and 32, thence  
I run

N.0°03'W. bet. secs. 29 and 30.

Over rolling land; through dense timber and scattering undergrowth of sagebrush and grass.

Ascend slightly.

24.00 Top of ascent, 125 ft. above sec. cor., brs. NE. & SW.

Descend.

28.35 Wash, 8 lks. wide, 2 ft. deep, 10 ft. below top of ascent, drains SW.

Ascend.

30.00 Top of ascent, 20 ft. above wash, brs. NE. and SW.

Ascend slightly.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 30 on W half and S 29 on E half; from which

A pine, 8 ins. in dia., brs. S.41°15'W., 13 lks. dist., marked  $\frac{1}{4}$  S 30 B T

A pine, 8 ins. in dia., brs. S. 42°05'E., 41 lks. dist., marked  $\frac{1}{4}$  S 29 B T

Nov. 17, 1910.

Nov. 18: This day it snowed all day making it impossible to work.

Nov. 19: Sky overcast making solar observations impossible.

I continue from the  $\frac{1}{4}$  sec. cor., bet. secs. 29 and 30 N.0°03'W. bet. secs. 29 and 30.

Over rolling land; through dense timber and scattering undergrowth of sagebrush and grass.

Ascend slightly.

58.00 Top of ascent, 125 ft. above  $\frac{1}{4}$  sec. cor., brs. NE. & SW.

Subdivision of T. 31 S., R. 17 W.

Chains

Descend.

63.85 Bottom of depression, 35 ft. below top of ascent, drains S.55°W.

Ascend mountain.

65.00 Timber, becomes scattering, brs. E. & W.

70.00 Enter dense timber, brs. E. & W.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 19, 20, 29 & 30, marked on brass cap

T 31 S S 19 in NW

R 17 W S 20 in NE

S 29 in SE. and

S 30 in SW. quadrants; from which

A pine, 10 ins. in dia., brs. N.68°15'W., 87 lks. dist., marked T 31 S R 17 W S 19 B T

A pine, 20 ins. in dia., brs. N.33°30'E., 98 lks. dist., marked T 31 S R 17 W S 20 B T

A pine, 8 ins. in dia., brs. S.58°15'E., 23 lks. dist., marked T 31 S R 17 W S 29 B T

A pine, 12 ins. in dia., brs. S.62°10'W., 59 lks. dist., marked T 31 S R 17 W S 30 B T

Land, rolling and mountainous.

Soil, gravelly and rocky, 3rd and 4th rate.

Timber, cedars and pinon pine.

Undergrowth, scattering sagebrush.

On this day dense fogs prevented work during part of the day.

Nov. 19, 1910.

Nov. 21: At 8h 46m a.m.l.m.t., I set off 38°06' on the lat. arc; 19°45'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19, 20, 29 & 30.

Thence I run

East on a random line bet. secs. 20 and 29.

Subdivision of T. 31 S., R. 17 W.

Chains

- 40.00 Set temp.  $\frac{1}{4}$  sec. cor.
- 80.10 Intersect N. and S. line, 10 lks. N. of cor. of secs.  
20, 21, 28 and 29.  
Thence I run  
N.89°56'W. on a true line bet. secs. 20 and 29.  
Over rolling mountainous land; through timber and under-  
growth of mahogany and scattering sagebrush and grass.  
Descend.
- 3.00 Bottom of depression, 20 ft. below sec. cor., drains SE.  
Ascend.
- 15.00 Top of spur, 260 ft. above bottom of depression, projects  
S.20°E. about 10 chs.  
Descend.
- 17.50 Wash, 5 lks. wide, 1 ft. deep, 20 ft. below top of spur,  
drains S.20°E.  
Ascend.
- 25.00 Top of spur, 215 ft. above wash, projects S.25°E. about  
10 chs.  
Descend.
- 31.25 Wash, 6 lks. wide, 1 ft. deep, 40 ft. below top of spur,  
drains SE.  
Ascend.
- 40.05 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 20  
in N half and S 29 in S half; from which  
A mahogany, 6 ins. in dia., brs. N.10°W., 4 lks.  
dist., marked  $\frac{1}{4}$  S 20 B T  
A mahogany, 6 ins. in dia., brs. S.53°30'E., 64  
lks. dist., marked  $\frac{1}{4}$  S 29 B T  
Cor. is located on E. side of ridge, 270 ft. above wash.
- 40.50 Top of ridge, 10 ft. above  $\frac{1}{4}$  sec. cor., brs. N. and S.  
Descend.
- 56.00 Timber becomes scattering.  
Leave undergrowth of mahogany, brs. N. & SW.
- 71.75 Foot of mountain and wash, 10 lks. wide, 1 ft. deep, 980

Subdivision of T. 31 S., R. 17 W.

Chains

ft. below top of ridge, drains S.20°W.

Ascend.

72.00 Enter dense timber, brs. NE. & SW.

80.10 The cor. of secs. 19, 20, 29 and 30.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedars and pinon pine.

Undergrowth, mahogany and scattering sagebrush and grass.

Nov. 21: At this cor. I set off 19°50'S. on the decl.

arc; and at 11h 46m a.m.l.m.t., observe the sun on the meridian; the resulting lat. is 38°06'.

N.89°44'W. on a random line bet. secs. 19 & 30.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

86.90 Intersect W. bdy. of Tp. 1 lk. N. of cor. of secs. 19, 24, 25 & 30, on W. bdy. of Tp., heretofore described.

Thence I run

S.89°44'E. on a true line bet. secs. 19 and 30.

Over mountainous land; through timber and scattering undergrowth of sagebrush, and grass.

Ascend.

3.50 Top of mountain, 75 ft. above sec. cor., brs. NE. and SW.

Descend.

18.00 Timber becomes scattering, brs. NW. & SE.

23.75 Bottom of depression, 480 ft. below top of mountain, drains SE.

Ascend.

25.00 Top of spur, 20 ft. above depression, projects SE. about 4 chs.

Descend.

32.40 Wash, 10 lks. wide, 1 ft. deep, 100 ft. below top of spur, drains S.

Ascend.

37.00 Top of spur, 20 ft. above wash, projects SE. about 12 chs.

Subdivision of T. 31 S., R. 17 W.

Chains

Descend.

46.90 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 19 in N. half, and S 30 in S half; from which

A pine, 8 ins. in dia., brs. N.35°10'E., 1.45 chs. dist., marked  $\frac{1}{4}$  S 19 B T

A pine, 12 ins. diam., brs. S.24°15'E., 30 lks. dist., marked  $\frac{1}{4}$  S 30 B T

Cor. is located on S. slope of spur, in bottom of depression, 100 ft. below top of spur.

Ascend.

51.40 Top of spur, 25 ft. above  $\frac{1}{4}$  sec. cor., projects S.15°E. about 8 chs.

Descend.

58.90 Wash, 20 lks. wide, 1 ft. deep, 150 ft. below top of spur, drains S.

Ascend mountain.

63.00 Enter dense timber, brs. NE. & SW.

75.00 Top of spur, 425 ft. above wash, projects S.10°E. 4 chs.

Descend.

80.50 Foot of descent, 130 ft. below top of spur, brs. S.

Ascend.

86.90 The cor. of secs. 19, 20, 29 and 30.

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedars and pinon pine.

Undergrowth, scattering sagebrush and grass.

Nov. 21, 1910.

Nov. 22: At 8h 47m a.m.l.m.t., I set off 38°06' on the lat. arc; 20°01'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30.

Thence I run

N.0°03'W. bet. secs. 19 and 20.

Subdivision of T. 31 S., R. 17 W.

Chains	Over mountainous land; through timber and scattering undergrowth of sagebrush & grass. Ascend mountain.
18.00	Top of mountain, 300 ft. above sec. cor., brs. E. and W. Descend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 19 in W half and S 20 in E half; from which A pine, 12 ins. in dia., brs. S. 66°15'W., 46 lks. dist., marked $\frac{1}{4}$ S 19 B T A pine, 12 ins. in dia., brs. N.30°20'E., 12 lks. dist., marked $\frac{1}{4}$ S 20 B T Cor. is located on N. slope of mountain, 415 ft. below top.
50.65	Wash, 10 lks. wide, 2 ft. deep, 165 ft. below $\frac{1}{4}$ sec. cor., drains NW. Ascend.
54.50	Top of spur, 20 ft. above wash, projects W. about 2 chs. Descend.
63.00	Top of descent, 90 ft. below top of spur, brs. NW. & SE. Thence on nearly level line along W. slope of ridge.
66.00	Descend into wash, brs. NW. & SE.
67.30	Wash, 20 lks. wide, 1 ft. deep, 20 ft. below top of descent, drains NW. Ascend.
72.50	Top of spur, 50 ft. above wash, projects NW. about 8 chs. Descend.
77.70	Wash, 10 lks. wide, 2 ft. deep, 100 ft. below top of spur, drains W. Ascend.
80.00	Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for the cor. of secs. 17, 18, 19 and 20, marked on brass cap

T 31 S S 18 in NW  
R 17 W S 17 in NE

Subdivision of T. 31 S., R. 17 W.

Chains

S 20 in SE. and

S 19 in SW. quadrants; from which

A pine, 6 ins. in dia., brs. N.44°10'W., 45  
lks. dist., marked T 31 S R 17 W S 18 B T

A pine, 12 ins. in dia., brs. N.73°10'E., 14  
lks. dist., marked T 31 S R 17 W S 17 B T

A pine, 6 ins. in dia., brs. S.17°15'E., 56  
lks. dist., marked T 31 S R 17 W S 20 B T

A pine, 12 ins. in dia., brs. S.13°30'W., 40  
lks. dist., marked T 31 S R 17 W S 19 B T

Land, mountainous.

Soil, rocky, 4th rate.

Timber, cedars and pinon pine.

Undergrowth, of scattering sagebrush and grass.

Nov. 22: At this cor. I set off 20°03'S. on the decl.  
arc; and at 11h 46m a.m.l.m.t., observe the sun on the  
meridian; the resulting lat. is 38°07'.

*Ralph Gentry*  
Instrumentman G. L. O.

November 23, 1910: At 9h 00m a.m., l.m.t., I set off 38°  
07' on the lat. arc; 20°14'S. on the decl. arc; and  
determine a meridian with the solar at the cor. of  
secs. 17, 18, 19 and 20.

Thence I run

S.89°56'E. on a random line bet. secs. 17 and 20.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.08 Intersect N. and S. line, 23 lks. N. of cor. of secs.  
16, 17, 20 and 21..

Thence I run

N.89° 46'W. on a true line bet. secs. 17 and 20.

Over rough, mountainous land; through scattering cedar  
and pinon pine, undergrowth of scrub mahogany and  
sagebrush.

Subdivision of T. 31 S., R. 17 W.

Chains	
	Ascend.
7.00	Top of ridge, bears N. and S. 110 ft. above sec. cor. Descend.
14.58	Wash, 5 lks. wide, 1 ft. deep, course NW. Ascend.
20.00	Timber becomes slightly heavier.
25.50	Top of spur, bears N. and S., 154 ft. above wash. Descend.
32.00	Wash, 15 lks. wide, 3 ft. deep, course N., 28 ft. below top of spur. Ascend over ledge of igneous rock, bears NW. and SE.
35.00	Top of spur, bears N. and S. 54 ft. above wash. Descend.
38.00	Wash, 25 lks. wide, 6 ft. deep, course NE., 37 ft. below top of spur. Ascend.
40.04	Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in the ground to solid rock, mound of stone around post, for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 17 on N half and S 20 on S half; from which A cedar, 16 ins. in diam., bears N.17°20'E., 35 lks. dist., marked $\frac{1}{4}$ S 17 B T A cedar, 14 ins. diam., bears S.1°02'E., 1.14 chs. dist., marked $\frac{1}{4}$ S 20 B T Cor. is located 50 ft. above wash. Nov. 23: At 11h 46m a.m., l.m.t., I set off 20°16'S. on the decl. arc and observe the sun on the meridian at this cor.; the resulting lat. is 38°07'. Ascend.
48.00	Top of ridge, bears N. and S., 125 ft. above $\frac{1}{4}$ sec. cor., Descend through more scattering timber.
61.08	Wash, 5 lks. wide, 1 ft. deep, course N.15°W., 366 ft. below top of ridge. Ascend.
64.00	Top of small ridge, bears N. and S., 22 ft. above wash.

Subdivision of T. 31 S., R. 17 W.

Chains	Descend.
72.58	Wash, 10 lks. wide, 1 ft. deep, course SW., 76 ft. below top of ridge.
80.08	The cor. of secs. 17, 18, 19 and 20, 14 ft. above wash, LeRoy Spring and cabin bears S.52°32'W., 31.30 chs. dist. Land, rough mountainous. Soil, gravelly and rocky 3rd and 4th rate. Timber, scattering cedar and pinon pine. Undergrowth, scrub mahogany and sagebrush.
	Thence I run
	N.89°45'W. on a random line bet. secs. 18 and 19.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
86.90	Intersect W. bdy. of Tp. 14 lks. N. of cor. of secs. 13, 18, 19 and 24, heretofore described.
	Thence I run
	S.89°51'E. on a true line bet. secs. 18 and 19.
	Over rolling mountainous land; through scattering cedar and pinon pine with undergrowth of scattering sagebrush and scrub mahogany.
	Descend.
4.90	Wash, 5 lks. wide, 2 ft. deep, course NE., 54 ft. below sec. cor.
	Ascend.
6.00	Top of small ascent bears N. and S.
	Descend.
6.90	Wash, 10 lks. wide, 1 ft. deep; course NW.
	Ascend.
7.15	Old wagon road, bears NE. and SW.
11.00	Top of ridge, bears N. and S. 22 ft. above wash.
	Descend.
15.00	Wash, 5 lks. wide, $1\frac{1}{2}$ ft. deep, course N.30°E., 22 ft. below top of ridge.
	Ascend.
21.00	Top of ridge, bears N. and S., 66 ft. above wash.

Subdivision of T. 31 S., R. 17 W.

Chains	Descend.
29.50	Wash, 5 lks. wide, 1 ft. deep, course N.15°E., 58 ft. below top of ridge.
	Ascend.
31.00	Top of ridge, bears NE. and SW.
	Descend.
38.40	Wash, 8 lks. wide, 2 ft. deep, course NE., 62 ft. below top of ridge.
43.90	Wash, 5 lks. wide, 2 ft. deep, course N.
	Ascend.
46.90	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 18 on N half and S 19 on S half; from which A cedar, 6 ins. in diam., bears N.86°08'W., 1.04 chs. dist., marked $\frac{1}{4}$ S 18 B T A pinon pine, 6 ins. diam., bears S.6°10'E., 93 lks. dist., marked $\frac{1}{4}$ S 19 B T 38 ft. above wash.
	Ascend.
55.00	Top of ridge, bears NE. and SW., 38 ft. above $\frac{1}{4}$ sec. cor.
	Descend.
70.00	Wagon road to Lund, Utah, bears N.30°E. and S.30°W.
70.40	Wash, 8 lks. wide, 2 ft. deep, course N.15°E., 132 ft. below top of ridge.
	Ascend.
74.00	Top of quartzite ledge, bears N. and S., 46 ft. above wash.
	Descend.
77.65	Wash, 5 lks. wide, 1 ft. deep, course N.60°W., 20 ft. below top of ledge.
	Ascend.
83.00	Timber becomes heavier bears N. and S.
86.90	The cor. of secs. 17, 18, 19 and 20, 108 ft. above wash. Land, rolling, mountainous. Soil, gravelly loam and rocky, 3rd and 4th rate.

Subdivision of T: 31 S., R. 17 W.

Chains

Timber, scattering cedar and pinon pine.

Undergrowth, sagebrush and scattering scrub mahogany.

*Eric H. Anderson*

Instrumentman G. L. O.

November 23, 1910.

N.0°03'W. bet. secs. 17 and 18.

Over mountainous land; through dense timber and scattering undergrowth of sagebrush and grass.

Ascend.

4.50 Top of ridge, 90 ft. above sec. cor., brs. E. and W. about 14 chs.

Descend.

33.35 Wagon road, brs. NE. & SW.

34.30 Wash, 12 lks. wide, 2 ft. deep, 310 ft. below top of ridge, drains NE.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 18 in W half and S 17 in E half; from which

A cedar, 8 ins. in dia., brs. S.66°15'W., 48 lks. dist., marked  $\frac{1}{4}$  S 18 B T

A cedar, 6 ins. in dia., brs. S.55°50'E., 21 lks. dist., marked  $\frac{1}{4}$  S 17 B T

Cor. is located on SE. slope of spur, 25 ft. above wash. Ascend slightly from  $\frac{1}{4}$  sec. cor. through rolling hills.

42.00 Timber, becomes scattering brs. E. and W.

42.20 Top of spur, 10 ft. above  $\frac{1}{4}$  sec. cor., brs. E. and W. Descend.

49.20 Old wagon road, brs. E. and W.

49.70 Wash, 12 lks. wide, 2 ft. deep, 30 ft. below top of spur, drains E.

Ascend.

54.50 Top of ascent, 80 ft. above wash, brs. E. and W. Descend.

## Subdivision of T. 31 S., R. 17 W.

Chains  
61.75

Wash, 6 lks. wide, 1 ft. deep, 90 ft. below top of descent,  
drains E. Ascend.

67.00

Top of ascent, 100 ft. above wash, brs. NE. and SW.  
Thence over rolling land.  
Descend slightly.

80.00

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in  
the ground for cor. of secs. 7, 8, 17 and 18, marked  
on brass cap

T 31 S S 7 in NW

R 17 W S 8 in NE

S 17 in SE. and

S 18 in SW. quadrants; from which

A pine, 8 ins. in dia., brs. N.23°38'W., 61 lks.  
dist., marked T 31 S R 17 W S 7 B T

A pine, 10 ins. in dia., brs. N.58°16'E., 64 lks.  
dist., marked T 31 S R 17 W S 8 B T

A pine, 8 ins. in dia., brs. S.79°E., 53 lks.  
dist., marked T 31 S R 17 W S 17 B T

A cedar, 8 ins. in dia., brs. S.31°30'W., 60 lks.  
dist., marked T 31 S R 17 W S 18 B T

Land, mountainous and rolling hills.

Soil, rocky and gravelly 3rd and 4th rate.

Timber, cedars and pinon pine.

Undergrowth, scattering sagebrush and grass.

Nov. 22, 1910.

Nov. 23: At 8h 46m a.m., l.m.t., I set off 38°08' on the  
lat. arc; 20°14'S. on the decl. arc; and determine a  
meridian with the solar, at the cor. of secs. 7, 8, 17  
and 18.

Thence I run

S.89°46'E. on a random line bet. secs. 8 and 17.

40.00

Set temp.  $\frac{1}{4}$  sec. cor.

79.74

Intersect N. and S. line 30 lks. S. of cor. of secs. 8,  
9, 16 and 17.

Thence I run

Subdivision of T. 31 S., R. 17 W.

Chains	S.89°59'W. on a true line bet. secs. 8 and 17.
	Over rolling land; through timber and undergrowth of sagebrush and scattering grass.
	Descend slightly.
4.00	Timber becomes scattering brs. N. and S.
10.00	Wash, 50 lks. wide, 3 ft. deep, 35 ft. below sec. cor., drains N.10°E.
	Ascend slightly.
25.45	Wagon road, brs. NW. and SE.
39.87	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 8 in N half and S 17 in S half; from which
	A cedar, 6 ins. in dia., brs. N.4°15'W., 45 lks. dist., marked $\frac{1}{4}$ S 8 B T
	A pine, 6 ins. in dia., brs. S.32°45'E., 58 lks. dist., marked $\frac{1}{4}$ S 17 B T
	From this cor. the SW. cor. of a corral, 50x75 ft. bears N.0°10'W., 9.96 chs.
42.00	Descend into wash, bears NE. & SW.
44.15	Wagon road, brs. NE. & SW.
44.45	Wash, 15 lks. wide, 2 ft. deep, 50 ft. below top of descent, drains NE.
	Ascend.
54.00	Top of ascent, 60 ft. above wash, brs. NE. & SW. Thence over gentle rolling land.
	Leave undergrowth, and enter timber.
79.74	The cor. of secs. 7, 8, 17 and 18.
	Land, rolling.
	Soil, gravelly loam, 6 to 12 ins. deep, on a subsoil of cemented clay, 2nd and 3rd rates.
	Timber, cedars and pinon pine.
	Undergrowth of sagebrush and scattering grass.
40.00	N.89°51'W. on a random line bet. secs. 7 and 18. Set temp. $\frac{1}{4}$ sec. cor.

Subdivision of T. 31 S., R. 17 W.

Chains

86.75 Intersect W. bdy. of Tp. 14 lks. S. of the cor. of secs. 1, 6, 7, and 12, heretofore described.

Thence I run

S.89°45'E. on a true line bet. secs. 7 and 18.

Over mountainous land; through scattering timber and undergrowth of sagebrush and grass.

Descend.

4.00 Enter dense timber, brs. N. and S.

13.00 Timber becomes scattering, brs. N. and S.

21.75 Bottom of depression, 400 ft. below sec. cor., drains SE. Ascend.

28.75 Top of spur, 20 ft. above depression, projects SE. about 12 chs.

Descend.

32.25 Bottom of depression, 20 ft. below top of spur, drains SE.

Ascend.

39.25 Top of spur, 30 ft. above depression, projects SW. about 10 chs.

Enter dense timber. Descend.

46.75 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap 1/4 S 7 in N half and S 18 in S half; from which

A pine, 6 ins. in dia., brs. N.19°15'W., 17 lks. dist., marked 1/4 S 7 B T

A pine, 6 ins. in dia., brs. S.1°15'E., 43 lks. dist., marked 1/4 S 18 B T

Cor. is located on E. slope of ridge, 130 ft. below top. Nov. 23: At this cor. I set off 20°16'S. on the decl. arc; and at 11h 46m a.m., l.m.t., observe the sun on the meridian; the resulting lat. is 38°08'.

73.65 Wash, 10 lks. wide, 5 ft. deep, 225 ft. below 1/4 sec. cor. drains NE.

Thence over rolling land.

86.75 The cor. of secs. 7, 8, 17 and 18.

Subdivision of T. 31 S., R. 17 W.

Chains

Land, mountainous and rolling.  
Soil, gravelly loam and rocky, 2nd, 3rd and 4th rates.  
Timber, cedars and pinon pine.  
Undergrowth; scattering sagebrush and grass.

N.0°03'W. bet. secs. 7 and 8.

Over rolling land; through dense timber and scattering undergrowth of sagebrush and grass.

- 8.70 Wash, 8 lks. wide, 2 ft. deep, drains NE.
- 11.45 Wash, 6 lks. wide, 1 ft. deep, drains S.75°E.
- 33.50 Point of descent, brs. NW. and SE.
- 40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 7 in W half and S 8 in E. half; from which
  - A cedar, 6 ins. in dia., brs. N.87°15'W., 28 lks. dist., marked  $\frac{1}{4}$  S 7 B T
  - A pine, 8 ins. in dia., brs. S.42°20'E., 84 lks. dist., marked  $\frac{1}{4}$  S 8 B T

Nov. 23, 1910.

Nov. 25: At 8h 46m a.m.l.m.t., I set off 38°09' on the lat. arc; 20°38'S. on the decl. arc; and determine a meridian with the solar at  $\frac{1}{4}$  sec. cor.

Ascend slightly.

- 42.15 Wagon road, brs. NW. and SE.
- 66.50 Point of descent, brs. NW. and SE.
- 72.25 Wash, 12 lks. wide, 3 ft. deep, 60 ft. below point of descent, drains E.
- Ascend on hill.
- 80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 5, 6, 7 and 8, marked on brass cap

T 31 S S 6 in NW

R 17 W S 5 in NE

S 8 in SE. and

S 7 in SW. quadrants; from which

Subdivision of T. 31 S., R. 17 W.

Chains.

A pine, 12 ins.in dia., bears N.50° 25'W., 39.

lks.dist., marked T 31 S R 17 W S 6 B T

A pine, 12 ins.in dia., brs.N.29°40'E., 40 lks.

dist., marked T 31 S R 17 W S 5 B T

A pine, 10 ins.in dia., brs.S.29° 30'E., 1.11

chs.dist., marked T 31 S R 17 W. S 8 B T

A pine, 10 ins.in dia., brs.S.8° 30'W., 83 lks.

dist., marked T 31 S R 17 W S 7 B T

Land, rolling and rolling hills.

Soil, gravelly and rocky, 2nd and 4th rates.

Timber, cedars and pinon pine.

Undergrowth, scattering sagebrush and grass.

Cor.is located on S.slope of hill, 75 ft.above wash.

*Ralph Gentry*  
Instrumentman G.L.O.

Nov.25, 1910: At 9h 00m a.m.l.m.t., I set off 38° 09'  
on the lat.arc; 20° 38'S.on the decl.arc; and deter-  
mine a meridian with the solar at cor.of secs.5,6,7,  
and 8.

Thence I run

S.89° 59'E.on a random line bet.secs.5 and 8,

40.00 Set temp.  $\frac{1}{4}$  sec.cor.

79,76 Intersect N.and S.line 30 lks.N.of cor.of secs.4,5,8,  
and 9.

Thence I run

N.89°46'W.on a true line bet.secs.5 and 8,

Through dense cedar and pinon pine; over rolling land.

Ascend gently.

12.00 Top of ascent, bears N.and S.

Descend gently.

18.00 Wash, 5 lks.wide, 18 ins.deep, course NE.

Ascend gently.

Subdivision of T. 31 S., R. 17 W.

Chains.

- 20.00 Top of ascent, bears N. and S.  
Descend.
- 25.00 Wash, 5 lks. wide, 1 ft. deep, course N.  
Timber becomes less dense; ascend.
- 30.75 Wash, 15 lks. wide, 2 ft. deep, course NE.  
Ascend.
- 39.88 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in  
the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S  
5 on N. half, and S 8 on S. half; from which
  - A cedar, 8 ins. diam., bears N. 89° 42' E., 90 lks.  
dist., marked  $\frac{1}{4}$  S 5 B T
  - A cedar, 8 ins. diam., bears S. 9° 12' W., 1.10  
chs. dist., marked  $\frac{1}{4}$  S 8 B T
 36 ft. above wash.  
Ascend.
- 52.00 Top of small ridge, bears NW. and SE., 78 ft. above  $\frac{1}{4}$   
sec. cor.  
Descend gently.
- 56.00 Wash, 5 lks. wide, 1 ft. deep, course SE.  
Ascend gently.
- 59.00 Top of small ascent, bears N. and S.  
Descend.
- 63.50 Wash, 8 lks. wide, 2 ft. deep, course SE., 34 ft. below  
point of descent.  
Ascend.
- 72.00 Top of small spur, bears N. and S., 78 ft. above wash.  
Descend.
- 75.25 Wash, 10 lks. wide, 1 ft. deep, course S.  
Ascend.
- 79.76 The cor. of secs. 5, 6, 7, and 8, 52 ft. above wash.  
Land, rolling.  
Soil, gravelly loam; 3rd rate.  
Timber, dense cedar and pinon pine, 60 chs.; scattering  
timber 20 chs.  
Undergrowth, scattering sagebrush.

Subdivision of T.31 S., R.17 W.

Chains.

November 25, 1910.

*Eric H. Anderson*  
Instrumentman G.L.O.

- N.89°45'W.on a random line bet.secs.6 and 7,
- 40.00 Set temp, $\frac{1}{4}$  sec.cor.
- 86.60 Intersect W.bdy.of Tp.10 lks.S.of cor.of secs.1,6,7,and  
12, heretofore described.
- Thence I run
- S.89° 41' E.on a true line bet.secs.6 and 7,
- Over rolling land; through timber and undergrowth of  
sagebrush.
- 5.00 Wash, 12 lks.wide, 2 ft.deep, drains SE.  
Ascend slightly.
- 14.60 Timber becomes scattering, brs.NE. & SW.  
Top of ascent, 30 ft.above wash, brs.N.and SE.  
Descend slightly.
- 14.70 Wagon road, brs.NW. and SE.
- 24.60 Recross wagon road, brs.NE. & SW.
- 27.10 Recross wagon road, brs.N.80° W. and S.80° E.
- 32.65 From this point a spring of fresh water brs.north 1.25  
chs.dist.
- 33.95 Recross wagon road, brs.NW. & SE.
- 36.25 Wash, 15 lks.wide, 2 ft.deep, drains SE.  
Ascend over hills.
- 37.60 Enter dense timber, brs.NW. and SE.
- 46.60 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in  
the ground, for  $\frac{1}{4}$  sec.cor., marked on brass cap  $\frac{1}{4}$  S 6  
in N.half, and S 7 in S.half; from which
  - A pine, 14 ins.in dia., brs.N.5°30'E.51 lks.dist.  
marked  $\frac{1}{4}$  S 6 B T
  - A pine, 14 ins.in dia., brs.S.60° W. 83 lks.dist.  
marked  $\frac{1}{4}$  S 7 B T
- Cor.is located on SW.slope of hill, 60 ft.above wash.

Subdivision of T.31 S., R.17 W.

Chains.	<p>Nov.25: At this cor.I set off 20° 41'S.on the decl.arc; and at 11h 46m a.m.l.m.t., observe the sun on the me- ridian; the resulting lat.is 38° 09'</p>
53.60	<p>Top of spur, 20 ft.above <math>\frac{1}{4}</math> sec.cor., projects SE., about 3 chs. Descend.</p>
59.00	<p>Wash, 6 lks.wide, 1 ft.deep, 75 ft.below top of spur, drains SW. Ascend.</p>
74.50	<p>Top of spur, 50 ft.above wash, projects SE.about 6 chs. Descend.</p>
81.50	<p>Bottom of depression, 75 ft.below top of spur, drains S. Ascend.</p>
86.60	<p>The cor.of secs.5,6,7, and 8. Land, rolling and mountainous. Soil, gravelly loam &amp; rocky; 2nd and 4th rate. Timber, cedars and pinon pine. Undergrowth, scattering sagebrush and grass. Nov.25, 1910.</p>
8.00	<p>Dec.8: At 8h 52m a.m.l.m.t., I set off 38° 09' on the lat.arc; 22° 39'S.on the decl.arc; and determine a meridian with the solar at the cor.of secs.5,6,7,and 8. Thence I run N..° 03'W.bet.secs.5 and 6, Over mountainous land; through timber and scattering undergrowth of sagebrush and grass. Ascend.</p>
12.00	<p>Top of ascent, 45 ft.above sec.cor., bra.E. Descend. Foot of descent, 50 ft.below top of ascent, bra.SF. Ascend.</p>
22.50	<p>Top of spur, 75 ft.above foot of descent, projects SE. about 3 chs. Descend slightly.</p>

Subdivision of T.31 S., R.17 W.

Chains.

40.00 Set an iron post 3 ft.long, 1 in.in dia., 26 ins.in the ground, for  $\frac{1}{4}$  sec.cor., marked on brass cap  $\frac{1}{4}$  S 6 in W.half, and S 5 in E.half; from which

A pine, 6 ins.in dia., brs.S.81°30'W. 40 lks. dist., marked  $\frac{1}{4}$  S 6 B T

A pine, 10 ins.in dia., brs.N.60°50'E., 49 lks. dist., marked  $\frac{1}{4}$  S 5 B T

Dec.8: At this cor.I set off 22° 40'S.on the decl.arc; and at 11h 52m a.m.l.m.t., observe the sun on the meridian; the resulting lat.is 38° 09'

42.50 Steep descent, into wash, brs.E. and W.

49.00 Wash, 6 lks.wide, 1 ft.deep, 80 ft.below point of descent, drains E.

Thence over rolling land.

110.95 Intersect Sixth Standard Parallel South, 7.71 chs.W.of cor.of secs.31 and 32, heretofore described.

Set an iron post, 3 ft.long, 2 ins.in dia., 24 ins.in the ground, for closing cor.for secs.5 & 6, mkd.on brass cap

C C T 30 S R 17 W S 31 S 32 in N,half, S 5 in SE.; and

S 6 in SW.quadrants; from which

A pine, 8 ins.in dia., brs.S.26° 30'E. 35 lks. dist., marked C C T 31 S R 17 W S 5 B T

A cedar, 6 ins.in dia., brs.S.10°30'W., 22 lks. dist., marked C C T 31 S R 17 W S 6 B T

Land, rolling and mountainous.

Soil, gravelly and rocky; 3rd and 4th rates.

Timber, cedars and pinon pine.

Undergrowth, scattering sagebrush and grass.

Dec.8, 1910.

*Ralph Smith*  
Instrumentman G.L.O.

GENERAL DESCRIPTION.

This township contains land ranging from rolling foot hills to rough, mountainous; and the soil, ranges from gravelly loam to rocky. The soil in the north half of this township, which is rolling land, can nearly all be classed as 2nd rate, which is a gravelly loam, and is covered with a dense growth of cedars and pinon pine, and scattering undergrowth of sagebrush and grass.

The S. portion of this township is nearly all rough and mountainous land, covered with a growth of cedars, pinon pine, a few scattering long leaf pine, and an undergrowth of mahogany brush, sagebrush and grass.

The timber on this township is very small, and is of little commercial value.

There are a few small fresh water springs found in secs. 19, 16, and 21 and 6.

There are traces of copper, silver and lead found through the mountains. No part of this township returned as mineral land.

This township would make good grazing land for cattle.

There are no settlers in this township.

*Robert E. L. Collier*  
*Ralph L. L. L.*  
*Eric H. Anderson*  
Instrumentmen G. L. O.

~~FINAL OATH OF DEPUTY SURVEYOR AND HIS ASSISTANTS.~~

LIST OF NAMES.

A list of the names of the individuals employed by Robert E. L. Collier and Ralph Gentry, U.S. Transitmen G. L. O., United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of subdivision and retracement W.S. & E. Bdys. T. 34 S., R. 17 W.; subdivision and resurvey E. Bdy. T. 33 S., R. 17 W.; subdivision and retracement E. & S. Bdys. T. 32 S. R. 18 W.; and subdivision and resurvey E. Bdy. T. 31 S., R. 17 W. S. L. B. & M. showing the respective capacities in which they acted:

R. H. Browne ..... , Chainman.

..... , Chainman.

Edward N. Thompson ..... , Moundman.

..... , Moundman.

..... , Axman.

..... , Axman.

..... , Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Robert E. L. Collier and Ralph Gentry, U.S. Transitmen G. L. O., United States Deputy Surveyor, in surveying all those parts or portions of the subdivision and retracement W.S. & E. Bdys. T. 34 S., R. 17 W.; subdivision and resurvey E. Bdy. T. 33 S., R. 17 W.; subdivision and retracement E. & S. Bdys. T. 32 S., R. 18 W.; and subdivision and resurvey E. Bdy. T. 31 S., R. 17 W. of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah

..... , Chainman.

R. H. Browne ..... , Chainman.

Edward N. Thompson ..... , Moundman.

..... , Moundman.

..... , Axman.

..... , Axman.

..... , Flagman.

Subscribed and sworn to before me this 23 day of October, 1910, 190-

Robert E. L. Collier



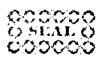
..... Instrumentman G. L. O.

FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, \_\_\_\_\_, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from \_\_\_\_\_ United States Surveyor General for \_\_\_\_\_, bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 190 \_\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for \_\_\_\_\_, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_ of the \_\_\_\_\_ meridian, in the \_\_\_\_\_ of \_\_\_\_\_, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

\_\_\_\_\_  
*United States Deputy Surveyor.*

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 190 \_\_\_\_\_



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

\_\_\_\_\_, 190 \_\_\_\_\_

The foregoing field notes of the survey of \_\_\_\_\_

executed by \_\_\_\_\_ under his contract No. \_\_\_\_\_, dated \_\_\_\_\_, 190 \_\_\_\_\_, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

\_\_\_\_\_  
*United States Surveyor General.*

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.

\_\_\_\_\_  
*United States Surveyor General.*

~~FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.~~

LIST OF NAMES.

A list of the names of the individuals employed by Ralph Gentry,

U.S. Transitman, ~~U.S. Deputy Surveyor~~, to assist in running, measuring, and

marking the lines and corners described in the foregoing field notes of the survey of subdivision,  
and retracement W.S. and E. Bdys. T. 34 S., R. 17 W.; subdivision T. 33 S. R. 17  
W.; subdivision and retracement S. Bdy. T. 32 S., R. 18 W.; and part of sub-  
division T. 31 S., R. 17 W., S. L. B. & M., Utah,  
showing the respective capacities in which they acted:

....., *Chainman.*

....., *Chainman.*

....., *Moundman.*

Arnold J. Low

....., *Moundman.*

....., *Axman.*

....., *Axman.*

....., *Flagman.*

FINAL OATH OF ASSISTANTS.

I, ~~we~~ hereby certify that ~~we~~ assisted Ralph Gentry,

U.S. Transitman, ~~U.S. Deputy Surveyor~~, in surveying all

those parts or portions of the subdivision and retracement W., S., and E. Bdys.

T. 34 S., R. 17 W.; subdivision of T. 33 S., R. 17 W.; subdivision and

retracement S. Bdy. T. 32 S., R. 18 W.; and part of subdivision of T.

31 S., R. 17 W. of the Salt Lake

Base and ..... meridian, ..... of Utah

....., which are represented  
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey  
has been in all respects, to the best of <sup>my</sup> knowledge and belief, well and faithfully surveyed, and the  
corner monuments established, according to the instructions furnished by the United States Surveyor

General for U t a h.

....., *Chainman.*

....., *Chainman.*

*Arnold J. Low*

....., *Moundman.*

....., *Moundman.*

....., *Axman.*

....., *Axman.*

....., *Flagman.*

Subscribed and sworn to before me this 23  
day of October, 1910. ~~190X~~

*Robert E. R. Collins*

Instrumentman, C.L.O.



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, \_\_\_\_\_, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from \_\_\_\_\_ United States Surveyor General for \_\_\_\_\_, bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 190 \_\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for \_\_\_\_\_, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_

\_\_\_\_\_ of the \_\_\_\_\_ meridian, in the \_\_\_\_\_ of \_\_\_\_\_, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

\_\_\_\_\_  
*United States Deputy Surveyor.*

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 190 \_\_\_\_\_ }

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APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

\_\_\_\_\_, 190 \_\_\_\_\_

The foregoing field notes of the survey of \_\_\_\_\_

executed by \_\_\_\_\_ under his contract No. \_\_\_\_\_, dated \_\_\_\_\_, 190 \_\_\_\_\_, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

\_\_\_\_\_  
*United States Surveyor General.*

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_ has been correctly copied from the original notes on file in this office.

\_\_\_\_\_  
*United States Surveyor General.*

~~FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.~~

LIST OF NAMES.

A list of the names of the individuals employed by Robert E.L. Collier and Ralph<sup>h</sup>

Gentry, U.S. Transitmen <sup>G.L.O.</sup> ~~United States Deputy Surveyor~~, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of subdivision and retracement W.S. & E. Bdys. T. 34 S., R. 17 W.; subdivision and resurvey E. Bdy. T. 33 S., R. 17 W.; subdivision and retracement E. & S. Bdys. T. 32 S., R. 18 W. and subdivision and resurvey E. Bdy. T. 31 S., R. 17 W., S.L.B. & M., Utah; showing the respective capacities in which they acted:

Eric H. Anderson ..... , *Chairman.*

..... , *Chairman.*

..... , *Moundman.*

..... , *Moundman.*

..... , *Asman.*

..... , *Asman.*

Lawrence D. Simmons ..... , *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Robert E.L. Collier and Ralph Gentry, In-

~~strumentman, G.L.O.~~ U. S. Transitmen ..... , United States Deputy Surveyor, in surveying all those parts or portions of the subdivision and retracement W. S. & E. Bdys. T. 34 S., R. 17 W.; subdivision and resurvey E. Bdy. T. 33 S., R. 17 W.; subdivision and retracement E. & S. Bdys. T. 32 S., R. 18 W. and subdivision and resurvey E. Bdy. T. 31 S., R. 17 W., ..... of the Salt

Lake Base and ..... meridian, ..... State ..... of ..... Utah ..... , which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for ..... Utah .....

Eric H. Anderson ..... , *Chairman.*

..... , *Chairman.*

..... , *Moundman.*

..... , *Moundman.*

..... , *Asman.*

..... , *Asman.*

Lawrence D. Simmons ..... , *Flagman.*

Subscribed and sworn to before me this 31st }  
day of October ..... , 1910 }

Ralph Gentry .....

Instrumentman G.L.O. .....



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, \_\_\_\_\_, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from \_\_\_\_\_ United States Surveyor General for \_\_\_\_\_, bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 190 , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for \_\_\_\_\_, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_ of the \_\_\_\_\_ meridian, in the \_\_\_\_\_ of \_\_\_\_\_, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

United States Deputy Surveyor.

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 190



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

\_\_\_\_\_, 190

The foregoing field notes of the survey of \_\_\_\_\_

executed by \_\_\_\_\_ under his contract No. \_\_\_\_\_, dated \_\_\_\_\_, 190 , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_ has been correctly copied from the original notes on file in this office.

United States Surveyor General.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS

LIST OF NAMES.

Robert E.L. Collier and

A list of the names of the individuals employed by Ralph Gentry, \*\*\*\*\*11

General Land Office, United States Deputy Surveyor, to assist in running, measuring, and

marking the lines and corners described in the foregoing field notes of the survey of subdivision, and resurvey of E. Bdy. T. 31 S., R. 17 W., S.L.B. & M., Utah.

showing the respective capacities in which they acted:

Arnold Low, Chairman.

Chairman.

Moundman.

Moundman.

Axman.

Axman.

Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Ralph Gentry

Instrumentman G.L.O., United States Deputy Surveyor, in surveying all

those parts or portions of the subdivision and resurvey of East Boundary of

Township No. 31 South, Range No. 17 West

Salt

Utah

Lake Base and meridian, State of Utah, which are represented

in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of my knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for Utah.

Chairman.

Arnold Low

Chairman.

Moundman.

Moundman.

Axman.

Axman.

Flagman.

Subscribed and sworn to before me this 19

day of November, 1910.

Ralph Gentry

Instrumentman, G.L.O.



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, \_\_\_\_\_, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from \_\_\_\_\_ United States Surveyor General for \_\_\_\_\_, bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 190\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for \_\_\_\_\_, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_ of the \_\_\_\_\_ meridian, in the \_\_\_\_\_ of \_\_\_\_\_, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

\_\_\_\_\_  
*United States Deputy Surveyor.*

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 190\_\_\_\_ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

\_\_\_\_\_, 190\_\_\_\_

The foregoing field notes of the survey of \_\_\_\_\_

executed by \_\_\_\_\_ under his contract No. \_\_\_\_\_, dated \_\_\_\_\_, 190\_\_\_\_, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

\_\_\_\_\_  
*United States Surveyor General.*

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.

\_\_\_\_\_  
*United States Surveyor General.*

FINAL OATH OF DEPUTY SURVEYOR AND HIS ASSISTANTS

LIST OF NAMES.

A list of the names of the individuals employed by Ralph Gentry, Instrumentman and Transitman, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of subdivision and retracement West Bdy. T. 34 S., R. 17 W.; subdivision T. 33 S. R. 17 W.; subdivision and retracement S. Bdy. T. 32 S., R. 18 W. and subdivision T. 31 S., R. 17 W., S.L.B. & M., Utah. showing the respective capacities in which they acted:

- Chas. S. Merrill, Chairman.
Chainman.
Moundman.
Moundman.
Axman.
Axman.
Chas. S. Merrill, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Ralph Gentry, Instrumentman, U.S.C., United States Deputy Surveyor, in surveying all those parts or portions of the subdivision and retracement West, Bdy. T. 34 S. R. 17 W.; subdivision of T. 33 S., R. 17 W.; subdivision and retracement South Bdy. T. 32 S., R. 18 W.; and subdivision of T. 31 S., R. 17 W. of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor General for Utah.

- Chas Merrill, Chairman.
Chainman.
Moundman.
Moundman.
Axman.
Axman.
Chas Merrill, Flagman.

Subscribed and sworn to before me this 19 - day of November, 1910.

Ralph Gentry

Instrumentman, G.L.O.



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, \_\_\_\_\_, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from \_\_\_\_\_ United States Surveyor General for \_\_\_\_\_, bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for \_\_\_\_\_, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_

\_\_\_\_\_ of the \_\_\_\_\_ meridian, in the \_\_\_\_\_ of \_\_\_\_\_, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

\_\_\_\_\_  
*United States Deputy Surveyor.*

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_ }



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

\_\_\_\_\_, 19\_\_\_\_

The foregoing field notes of the survey of \_\_\_\_\_

executed by \_\_\_\_\_ under his contract No. \_\_\_\_\_, dated \_\_\_\_\_, 19\_\_\_\_, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

\_\_\_\_\_  
*United States Surveyor General.*

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.

\_\_\_\_\_  
*United States Surveyor General.*

~~FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.~~

LIST OF NAMES.

A list of the names of the individuals employed by Robert E.L. Collier and Ralph Gentry  
U.S. Transitmen G.L.O., ~~United States Deputy Surveyor~~, to assist in running, measuring, and  
marking the lines and corners described in the foregoing field notes of the survey of subdivision and  
retracement E.Bdy.T.32 S., R. 18 W.; subdivision and Res.F.Bdy.T.31 S.  
R.17 W.; ~~and subdivision T. 31 S., R. 18 W., S.L.B. & M., Utah,~~  
showing the respective capacities in which they acted:

- ....., *Chainman.*
- ....., *Chainman.*
- ....., *Moundman.*
- ....., *Moundman.*
- ....., *Asman.*
- ....., *Asman.*
- ....., *Flagman.*

FINAL OATH OF ASSISTANTS.

I, ~~We~~ hereby certify that ~~We~~ assisted Robert E.L. Collier and Ralph Gentry  
U. S. Transitmen, ~~United States Deputy Surveyor~~, in surveying all  
those parts or portions of the subdivision and retracement E.Bdy.T.32 S., R. 18 W.  
and subdivision and resurvey E.Bdy.T.31 S., R. 17 W.;

..... of the Salt  
Lake Base and ..... meridian, ..... State ..... of Utah....., which are represented  
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey  
has been in all respects, to the best of <sup>my</sup> ~~our~~ knowledge and belief, well and faithfully surveyed, and the  
corner monuments established, according to the instructions furnished by the United States Surveyor  
General for U t a h.

- ....., *Chainman.*
- ....., *Chainman.*
- ....., *Moundman.*
- ....., *Moundman.*
- ....., *Asman.*
- ....., *Asman.*
- ....., *Flagman.*

*Sidney Reese*

Subscribed and sworn to before me this 8  
day of December, 1910, 190

*Ralph Gentry*  
Instrumentman G.L.O.



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

I, \_\_\_\_\_ United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from \_\_\_\_\_ United States Surveyor General for \_\_\_\_\_ bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 190\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for \_\_\_\_\_ the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_ of the \_\_\_\_\_ meridian, in the \_\_\_\_\_ of \_\_\_\_\_ which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of each survey.

United States Deputy Surveyor

Subscribed by said \_\_\_\_\_ and sworn to before me  
this \_\_\_\_\_ day of \_\_\_\_\_ 190\_\_\_\_



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL.

The foregoing field notes of the survey of \_\_\_\_\_

executed by \_\_\_\_\_ under his contract No. \_\_\_\_\_ (dated \_\_\_\_\_, 190\_\_\_\_), having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_ has been correctly copied from the original notes on file in this office.

United States Surveyor General.

~~FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.~~

LIST OF NAMES.

A list of the names of the individuals employed by Robert E.L. Collier, Ralph Gentry,  
U.S. Transitmen G.L.O.  
and Eric H. Anderson, ~~United States Deputy Surveyor~~, to assist in running, measuring, and  
marking the lines and corners described in the foregoing field notes of the survey of subdivision and  
retracement W.S. & E. Bdys. T. 34 S., R. 17 W.; subdivision and resurvey E. Bdy.  
T. 33 S., R. 17 W.; subdivision and retracement E. & S. Bdys. T. 32 S., R. 18 W.;  
and subdivision and resurvey E. Bdy. T. 31 S., R. 17 W., S.L.B. & M.  
showing the respective capacities in which they acted:

E. R. Bunbury ..... *Chairman.*

John G. Kienenberger ..... *Chairman.*

..... *Moundman.*

..... *Moundman.*

..... *Arman.*

..... *Arman.*

..... *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Robert E.L. Collier, Ralph Gentry, and Eric  
H. Anderson, ~~United States Deputy Surveyor~~ <sup>Transitmen</sup> in surveying all  
those parts or portions of the subdivision and retracement W.S. & E. Bdys. T. 34 S.,  
17 W.; subdivision and resurvey E. Bdy. T. 33 S., R. 17 W.; subdivision and  
retracement E. & S. Bdys. T. 32 S., R. 18 W.; and subdivision and resurvey  
E. Bdy. T. 31 S., R. 17 W. of the Salt

Lake Base and ..... meridian, ..... State ..... of ..... Utah ..... which are represented  
in the foregoing field notes as having been surveyed by ~~us~~ <sup>them</sup> and under ~~our~~ <sup>their</sup> direction; and that said survey  
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the  
corner monuments established, according to the instructions furnished by the United States Surveyor  
General for ..... Utah .....

E. R. Bunbury ..... *Chairman.*

John G. Kienenberger ..... *Chairman.*

..... *Moundman.*

..... *Moundman.*

..... *Arman.*

..... *Arman.*

..... *Flagman.*

Subscribed and sworn to before me this ..... 8 ..... }  
day of ..... December ....., 1920 }

Ralph Gentry

Instrumentman, G.L.O. ....



FINAL OATH OF UNITED STATES DEPUTY SURVEYOR.

TRANSITMAN.

I, Robert F.L. Collier, United States Transitman, United States Deputy Surveyor, do solemnly swear that, in pursuance of a contract received from Thomas Hull an assignment United States Deputy Surveyor, bearing date of the 6th day of August, 1910, 190, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of subdivision, and retracement W.S. and E. Bdy. T. 34 S. R. 17 W.; subdivision and resurvey E. Bdy. T. 33 S. R. 17 W.; subdivision and retracement E. Bdy. T. 32 S. R. 18 W.; subdivision and resurvey E. Bdy. T. 31 S. R. 17 W.

of the Salt Lake Base and Meridian, in the State of Utah, which are represented in the in books A, B, C, & F. foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

Robert E. L. Collier

United States Transitman.

United States Deputy Surveyor.

Subscribed by said Robert E.L. Collier, and sworn to before me this 14 day of March, 1911, 190x

Thomas Hull

U.S. Surveyor-General



APPROVAL.

for Utah.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, Feb. 26, 1914, 190x

The foregoing field notes of the survey of the subdivision, and resurvey of East Boundary of Township No. 31 South, Range No. 17 West of the Salt Lake Base and Meridian, Utah,

executed by Robert E. L. Collier, Ralph Gentry, and Eric H. Anderson, Instrumentmen, General Land Office, under special instructions dated August 6, 1910, 190x, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

Thomas Hull

United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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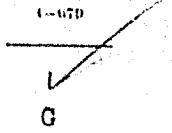
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**FIELD NOTES**  
BOOK A-390  
OF THE SURVEY OF THE

WEST BOUNDARY

of

TOWNSHIP NO. 31 SOUTH

RANGE NO. 18 WEST

of the SALT LAKE BASE AND Meridian,

In the State of U T A H

EXECUTED BY

RALPH GENTRY

Transitman

In the capacity of U.S. ~~Surveyor~~, under instructions dated August 6, 1910, issued by the United States Surveyor General to govern surveys included in Group No. 3, which were approved by the Commissioner of the General Land Office, September 12, 1910, pursuant to authority contained in the Act of Congress dated 1910

Survey commenced November 27, 1910

Survey completed December 15, 1910

*Handwritten notes and signatures at the bottom of the page.*

E. R. Bunbury  
Chas. S. Merrill  
L. S. Nuttall  
Sidney Reese  
Roy Penn Barton

Chairman.  
Chairman.  
Moundman.  
Axman.  
Flagman.

BOOK A-390

## INDEX DIAGRAM.

Township ..... 31 South ..... Range 18 West .....

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

BOOK A-390

# INDEX DIAGRAM.

Township....., Range.....

1	2	3	4	5	6
7	8	9	10	11	12
13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30
31	32	33	34	35	36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, E. R. Bunbury and Chas. S. Merrill  
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of West Boundary T. 31 S., R. 18 W., S.L.B. & M., Utah.

E. R. Bunbury, Chainman.  
Chas. Merrill, Chainman.

Subscribed and sworn to before me this 27  
day of November, 1910. ~~190X~~



Ralph Gentry  
Instrumentman, G.L.O.

WE, I, L. S. Nuttall and  
do solemnly swear that <sup>I</sup>we will well and truly perform the duties of moundman in the establishment of corners, according to the instructions given <sup>us</sup>me to the best of <sup>our</sup>my skill and ability, in the survey of West Boundary T. 31 S., R. 18 W., S.L.B. & M., Utah

L. S. Nuttall, Moundman.  
Moundman.

Subscribed and sworn to before me this 27  
day of November, 1910. ~~190X~~



Ralph Gentry  
Instrumentman, G.L.O.

WE, I, Sidney Reese and  
do solemnly swear that <sup>I</sup>we will well and truly perform the duties of axman in the establishment of corners and other duties, according to instructions given <sup>us</sup>me to the best of <sup>our</sup>my skill and ability, in the survey of West Boundary T. 31 S., R. 18 W., S.L.B. & M., Utah

Sidney Reese, Axman.  
Axman.

Subscribed and sworn to before me this 27  
day of November, 1910. ~~190X~~



Ralph Gentry  
Instrumentman, G.L.O.

I, Roy Penn Barton, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of West Boundary T. 31 S., R. 18 W., S.L.B. & M., Utah

Roy Penn Barton, Flagman.

Subscribed and sworn to before me this 27  
day of November, 1910. ~~190X~~



Ralph Gentry  
Instrumentman, G.L.O.

West Boundary 931 S R 18 W

Sunrise commenced November 27-1910 and  
 executed with a G. A. D. E. Huley, express  
 transit, with solar attachment.

The horizontal limb is provided with  
 two double verniers, placed opposite to  
 each other, reading to single minutes of  
 arc, which is also the least count of  
 the verniers of the latitude and declination  
 arcs.

The instrument was examined, tested  
 on the true meridian at Salt Lake City  
 found correct, and was approved by  
 the surveyor General for Utah, Aug 25-1910.

I examine the adjustments of the  
 transit, found them correct; then to  
 test the solar apparatus, by comparing its  
 indications, resulting from solar  
 observations made during a.m. and p.m.  
 hours, with a meridian determined by  
 observations on Polaris. I proceed as follows:

At the cor. of Tps. 31 and 32 S, R's 18 and 19 W;  
 latitude  $38^{\circ} 04' 17''$  N, longitude  $113^{\circ} 52'$  or  $''$  W;  
 I set off  $38^{\circ} 04' 17''$  by lat. arc,  $21^{\circ} 03'$  S on  
 decl. arc; and at  $3^h 48^m$  p.m. l.m.t., determine  
 with the solar a meridian and mark  
 a point thereon on a peg firmly set in  
 the ground 5 chrs. north of the cor.

At  $5^h 00^m$  by my watch which is  
 correct for l.m.t. I observe Polaris, and  
 mark the direction thus determined by  
 a nail driven in a peg firmly set 5 chrs.  
 N. of the cor.

Action l.m.t. of obs. Nov 27-1910 -  $5^h 00^m$

Equivalent to time of Nov 26-1910  $29^h 00^m$

Universal time U. C. Polaris Nov 26  $29^h 08.1$

Hour angle of Polaris, at obs.  $17^h 51.9$

Subtract from  $23^h 56.7$

Pro. Argument  $4^h 04.2$

Azimuth of Polaris at observation  $1^{\circ} 18' E$

Nov 27-1910

# West Boundary P 31 S R 18 W.

Chains. Nov. 28 - at 8<sup>h</sup> 30<sup>m</sup> a.m., h.m.t., I lay off the azimuth of Polaris, 1° 18' to the west, and mark the meridian thus determined, by a nail in the peg set Aug. 27, on which the meridian agrees, with the mark determined by the solar. At 8<sup>h</sup> 45<sup>m</sup> a.m. h.m.t. I set off 38° 04' on lat. arc: 21° 10' S on the decl. arc: and struck and mark a point in the meridian determined with the solar, by a nail in the peg already set, & chsd. 77 of my station: this mark falls 0.1 in. east of the meridian established by <sup>the</sup> Polaris observation.

The solar apparatus by 1. m and a.m. observations defines positions for meridians, respectively 0.00 <sup>41</sup> <sup>approx</sup> inch, 0" east of the meridian established by Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian, at 8<sup>h</sup> 15<sup>m</sup> a.m., is N 16° 30' W, the angle thus determined gives the mag. decl. 16° 30' E.

Thence I run

North bet. sec's 31 and 36 over gently rolling land, through undergrowth of sage brush, and bunch grass.

30.10 Station Road, bet NW & SE.

40.10 Set an iron post, 3 ft long, 1 in. in dia. 26 in. in the ground, for 1/4 sec. cor., marked on brass cap. 14 & 36 on W half and 31 on E half: dig pits, 18 x 18 x 12 in. N and S of post, 3 ft dist; and raise a mound of earth 3 1/2 ft base 1 1/2 ft high N of cor.

Asc. gradually from 1/4 sec. cor. to NW & E of SE.

(31)

## West Boundary T31 S R18 W

Chasno.	
61.50	Top of acc. 30 ft above $\frac{1}{4}$ sec cor. brs N N <sup>o</sup> 94 <sup>o</sup> & S W <sup>o</sup> E. Dec slightly.
65.95	Bottom of depression, 10 ft below top acc. Drains S W. acc.
65.00	Top of acc. 10 ft above ft. brs N N <sup>o</sup> & N E. Thence over rolling land.
89.00	Set an iron post, 3 ft long, 3 ins dia 24 ins. in the ground for cor of secs 25-30, 31, and 36. marked on brass cap T31 S on N half. R19 W S 25 in N W. R18 W S 30 in N E S 31 in S E. and S 36 in S W quadrants. Dig pits 18 X 18 X 12 ins in each sec., 5 $\frac{1}{2}$ ft dist.; and raise a mound of earth 4 ft. base, 2 ft. high N of cor.; Land gently rolling, drains to the S W. Soil, clay loam, 4 to 6 ins. deep, on a hard sticky subsoil, which holds the moisture, 3 $\frac{1}{2}$ rate. Undergrowth of sage brush and scattering bunch grass No timber.

	North, bet secs 25 and 30 over gently rolling land, through undergrowth of sage brush and scattering grass. Dec, slightly.
3.50	Bottom of depression, 10 ft below sec cor Drains, S W. acc slightly.
10.50	Top of acc, 10 ft above ft. brs N E & S W. Thence over gently rolling land.
38.00	Dec. into wash, brs N E & S W.
40.00	Set an iron post, 3 ft long, 1 in. dia.; 26 ins. in the ground for $\frac{1}{4}$ sec cor marked on brass cap; $\frac{1}{4}$ S 25 on W half, and S 30 on E. half.; dig pits 18 X 18 X 12 ins N and S of post

West Boundary 9.31 S R 18 W

Chains 3 ft dist; and raise a mound of earth 3 1/2 ft base, 1 1/2 ft high N of cor  
 Cor stands at ft of dec; 20 ft below top, bis N to S W, on nearly level.

44.25 Wash, 6 lks. wide, 2 ft deep, drains S W.  
 asc.

57.00 Top of asc, 20 ft above wash, bis N to S W  
 Then over nearly level land.

68.75 Dec, gradually, bis N W and S E.

74.00 Bottom of depression, 15 ft below top, drains  
 N W. asc.

80.00 Set an iron post, 3 ft long, 3 lbs. dia.,  
 24 ins in the ground for cor of secs  
 19-24-25 and 30 marked on brass cap.  
 T 31 S on N half  
 R 10 W S 19 in NE  
 R 19 W S 24 in N W  
 S 20 in S W and  
 S 30 in S E quadrants.  
 Dig pits 15 X 18 X 12 ins in each sec, 5 1/2 ft  
 dist; and raise a mound of earth  
 4 ft base, 2 ft high N of cor;  
 Land gently rolling,  
 soil, sandy and clay loam, with  
 a little gravel, 6 to 8 in deep on subsoil  
 of cemented clay, 3<sup>rd</sup> rate  
 Undergrowth of sage brush and  
 scattering grass  
 No timber.

North bet secs 19 and 24,  
 over rolling land, through  
 undergrowth of sage brush and  
 scattering grass.  
 asc slightly.

2.50 Top of asc, 10 ft above sec cor, bis N W and S E.  
 Then over nearly level land,

18.50 Point of dec, bis N E and S W.

23.70 Bottom of depression, 20 ft below top  
 drains, S W.

51

West Boundary P 31 S R 18 W

Chains.	acc
28.00	Top of spur, 20 ft above ft. projects S 71 2 chns. Dsc.
31.57	Bottom of depression, 20 ft below top of spur, drains S. 71.; acc.
38.00	Top of acc, 20 ft above ft. line NE of 71 Thence over gently rolling land.
40.00	Set an iron post, 3 ft long, 1 in dia.; 26 ins in the ground for $\frac{1}{4}$ sec cor., marked on brass cap. $\frac{1}{4}$ S 24 on W half and S 19 on E half. Dig pits, 15 X 15 X 12 ins, N and S of post. 3 ft dist.; and raise a mound of earth $3\frac{1}{2}$ ft base, $1\frac{1}{2}$ ft high N of cor.
57.60	Old wagon road, line N 2 and S 71.
80.00	Set an iron post, 3 ft long, 3 ins dia., 24 ins. in the ground, for cor of secs 13-18-19 and 24, marked on brass cap. T 31 S on N half R 19 W S 13 in N 71 R 18 W S 18 in N E S 19 in S E and S 24 in S 71 quadrants. dig pits 15 X 15 X 12 ins. in each sec., $5\frac{1}{2}$ ft dist.; and raise a mound of earth, 4 ft base, 2 ft high N of cor. Land gently rolling, drains S 71. Soil, clay loam, 4 to 6 ins. deep on subsoil, of cemented clay, 3 <sup>rd</sup> grade Undugrowth, sage brush and scattering grass. No timber Nov. 28: At this cor I set off $21^{\circ} 15' d.$ on decl arc; and at $11^{\circ} 48'$ alt mt observe the sun on the meridian; the resulting lat. is $38^{\circ} 07'$

West Boundary T31 S R18 W

Chains.	North bet secs 13 and 18 over gently rolling land, through undergrowth of sage brush and scattering grass
11.50	Enter scattering timber, bet NE and SW
13.25	Wash, 5 lks wide, 1 ft deep, Drains SW
16.00	Wash, 4 lks wide, 3 ft deep, Drains W
18.50	Wash, 10 lks wide 5 ft deep, Drains SW
40.00	Set an iron post 3 ft long, 1 in. dia. 26 ins in the ground for $\frac{1}{4}$ sec cor marked on brass cap $\frac{1}{4}$ S13 on W half and S 18 on E half; from which A Cedar 10 ins. diam., bet S $14^{\circ}30'N$ 1.28 chns. dist, marked $\frac{1}{4}$ S13 BT A Cedar 10 ins. diam. bet S $85^{\circ}00'E$ 1.08 chns. dist, marked $\frac{1}{4}$ S18 BT
47.00	Timber becomes denser, bet E and W
47.50	Wash, 20 lks. wide, 1 ft deep Drains SW
61.00	Timber becomes scattering, bet NE and SW
62.00	Wash, 8 lks wide, 1 ft deep, Drains SW
70.50	Wash, 8 lks wide, 1 ft deep, Drains SW
80.00	Set an iron post, 3 ft long, 3 ins. diam. 24 ins. in the ground. for cor of secs 7-12- 13 and 18, marked on brass cap T31 S. on N half. R18 W S 7 on NE R19 W S 12 in NW S 13 in S W and S 18 in S E quadrants; from which A Cedar 8 ins diam. bet $N 127^{\circ}45'E$ 3.58 chns dist, marked T31 S R18 W S 7 BT A Cedar 6 ins. diam. bet $N 78^{\circ}10'W$ 5.79 chns dist, marked T31 S R19 W S 12 BT A Cedar 8 ins. diam. bet S $41^{\circ}26'W$ 1.61 chns dist, marked T31 S R19 W S 13 BT. A Cedar 12 ins diam. bet S $28^{\circ}25'E$ 0.57 chns. dist, marked: T31 S R18 W S 18 BT. Land rolling, Drains SW. Soil, sandy loam, with gravel on surface from 4 to 6 ins deep, on subsoil of

West Boundary T 31 S R 18 W.

Chains.

cemented clay, 2nd rate.  
Timber, scattering Cedars and Pemon  
Pine, last 68.50 chns. dist.  
Undergrowth of sage brush and  
scattering grass.

North bet sees 7 and 12  
over rolling land, through  
scattering timber, and undergrowth  
of sage brush and scattering grass.

12.75

Wash, 5 lks wide, 1 ft deep. Drains S 91°

40.00

Set an iron post, 3 ft long, 1 in. dia.  
26 ins. in the ground, for 1/4 sec cor,  
marked on brass cap  
1/4 S 12' on N half

S 7' on E half, from which  
A Cedar 6 ins. diam. brs N 63° 00' W 31 lks  
dist, marked 1/4 S 12 BT

A Cedar 8 ins. diam. brs S 84° 15' E 33 lks  
dist., marked 1/4 S 7 BT.

Timber becomes denser, brs N 94 and S E.

47.40

Wash, 10 lks wide, 4 ft deep. Drains W.

62.75

Wash, 6 lks wide, 1 ft deep. Drains S W.

80.00

Set an iron post, 3 ft long, 3 ins. dia.  
24 ins in the ground, for cor of sees  
1-6-7 and 12, marked on brass cap

T 31 S R 18 W N half.

R 19 W S 1/2 on N W

R 18 W S 1/2 in N E.

S 7 1/2 in S E and

S 12 in S W quadrants, from which.

A Cedar 14 ins. dia. brs N 48° 45' W. 1.60 chns  
dist, marked T 31 S R 19 W S 1/2 BT

A Cedar 14 ins. dia. brs N 30° 10' E. 37 lks  
dist, marked T 31 S R 18 W S 1/2 BT

A Cedar 8 ins. dia. brs S 67° 45' E 41 lks  
dist. marked. T 31 S R 18 W S 1/2 BT

A Cedar 14 ins. dia brs S 35° 30' W 65 lks.  
dist, marked T 31 S R 19 W S 1/2 BT.

Land rolling, Drains S W.

West Boundary P 31 S R 18 W

Soil, sandy loam. 4 to 6 ins. deep on  
 subsoil of cemented clay, 2<sup>nd</sup> rate  
 timber, first 40.00 chus scattering Cedus  
 and Pinion Pine, and last 40.00 chus.  
 dense growth, of Cedus and Pinion Pine  
 Undergrowth, of sage brush and  
 scattering grass.

Nov. 28-1910.

Dec 15-1910. At 8<sup>h</sup> 55<sup>m</sup> a.m. l. g. t., I set off  
 38° 08' on the lat arc; 23° 13' on the  
 decl. arc; and determine a meridian  
 with the solar, at the cor of sees  
 1-6-7 and 12.

Thence I run

Trench bet sees 1 and 6  
 over rolling land, through timber  
 and undergrowth of sagebrush and  
 scattering grass.

- 13.45 Wash, 15 lbs wide, 6 ft deep, Drains N.
- 35.10 Wash, 10 lbs wide, 1 ft deep. Drains, N
- 37.50 Wagon Road, bet N Land S N.
- 39.20 Wash, 8 lbs wide, 2 ft. deep, dis. S. N. Ascend.
- 40.00 Set an iron post, 3 ft long, 1 in. dia.  
 26 ins in the ground, for 1/4 sec cor  
 marked on brass cap.  
 1/4 S 1 on W half and  
 S 6 on E half, from which.  
 A Cedar 6 ins diam. bet. N. 40° 30' W 7 1/2 lbs  
 dist. marked 1/4 S 1 B T  
 A Cedar 6 ins. dia. bet N 35° 30' E. 5 1/2 lbs  
 dist. marked 1/4 S 6 B T.
- Dec 15- At this cor. I set off 23° 14' S  
 on decl arc; and at 11<sup>h</sup> 55<sup>m</sup> a.m. l. g. t.,  
 observe the sun on the meridian,  
 the resulting lat is 38° 09'
- 52.95 Wash, 6 lbs wide, 1 ft deep, Drains N.

## West Boundary T 31 S R 18 W

- 53.20 Timber becomes dense, br E & S W.
- 55.80 Wash, 20 lbs wide, 6 ins. deep. Drains S W.
- 66.80 Wash, 10 lbs wide, 2 ft deep. Drains S W.
- 81.90. Wash, 20 lbs wide, 1 ft deep. Drains S W.
- 90.30 Wash, 6 lbs wide, 1 ft deep. Drains W.
- 104.00 Wash, 75 lbs wide, 4 ft deep. Drains S 70° W.
- 110.77 Inclusion with Standard Parallel South. 12.89 chms. N of Standard T.P. cor of Tps 30 S. R's 18 and 19 W; herefor described set an iron post, 3 ft long, 3 ins. dia. 24 ins in the ground. for closing cor of Tps 31 S. R 18 & 19 W. marked on brass cap.
- T 30 S. R's 18 & 19 W S 31 and S 36 in N half. S 1 in S W and
- 56 in S E quadrant, from which C.C. T 31 S. R 18 W. A Pine 8 ins dia. br S 13° 15' W 41 lbs marked. C.C. T 31 S R 19 W S 1 BT
- A P. Pine 14 ins. dia. br S 80° 10' E 35 lbs. dist. marked C.C. T 31 S R 18 W S 6 BT.
- Land rolling. Drains S W.
- Soil, gravelly & clay loam, 4 to 6 ins deep on subsoil of rounded clay.
- Timber, Cedrus and Pinon Pine.
- Scattering undergrowth of sage brush and grass.

Dec 15-1910  
Ralph Gentry  
Instrumentman G.S.O.

West Boundary T31 S R18 W  
 Latitudes, departures, and closings.

Line designated	True bearing	Distance chs.	Latitudes		Departures	
			N. chs.	S chs.	E. chs.	W chs.
3rd H.G. Mex.	North	510.23	510.23			
6th Ston. Pox. S	West	478.22				478.22
W bdy T31 S R18 W	South	510.77		510.77		
S bdy T31 S R18 W	N89°59'E	478.18	.14		478.18	
Convergence.					.57	
Totals			510.37	510.77	478.75	478.22
				510.37	478.22	
Error in lat.				.40	.53	Error in dep.

~~FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.~~

LIST OF NAMES.

A list of the names of the individuals employed by Ralph Gentry, United States

Transitman and Office, ~~United States Deputy Surveyor~~, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of West Boundary T. 31 S., R. 18 W., S. L. B. & M., Utah showing the respective capacities in which they acted:

E. R. Bunbury, Chainman.

Chas. S. Merrill, Chainman.

L. S. Nuttall, Moundman.

Sidney Reese, Axman.

Roy Penn Barton, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Ralph Gentry, United States Transitman and Office, ~~United States Deputy Surveyor~~, in surveying all those parts or portions of the West Boundary T. 31 S., R. 18 W.,

of the Salt

Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for Utah

E. R. Bunbury, Chainman.

Chas. S. Merrill, Chainman.

L. S. Nuttall, Moundman.

Sidney Reese, Axman.

Roy Penn Barton, Axman.

Flagman.

Subscribed and sworn to before me this 21 day of December, 1910, 190

Ralph Gentry

Instrumentman G. L. O.



TRANSITMAN  
FINAL OATH OF UNITED STATES DEPUTY-SURVEYOR.

I, Ralph Gentry, ~~United States Transitman, United States Deputy Surveyor,~~ do solemnly swear that, in pursuance of ~~a contract~~ <sup>an assignment</sup> received from Thomas Hull, United States Surveyor General for Utah, bearing date of the 6 day of August, 1910, ~~1900~~, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of West Boundary Township 31 South, Range 18 West

of the Salt Lake Base and meridian, in the Utah State of Utah, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

*Ralph Gentry*

~~United States Transitman,~~  
~~United States Deputy Surveyor.~~

Subscribed by said Ralph Gentry and sworn to before me) this 15 day of March, 1910, 190

*Thomas Hull*

U. S. Surveyor-General

for Utah.

APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, Feb. 26, 1914.

The foregoing field notes of the survey of the West Boundary Township No. 31 South Range No. 18 West of the Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry, ~~General Land Office,~~ <sup>Special Instructions</sup> under his contract No.         , dated August 6, 1910, 190, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

*Thomas Hull*  
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in         , has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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Obs. & fallings AKG.  
CVP.  
Checked FAS. (R.17 W.)

Filed Mar. 13, 1911.  
KFB.

4-679

H.  
BOOK A-390

# FIELD NOTES

RE  
OF THE SURVEY OF THE

ER

SIXTH STANDARD PARALLEL SOUTH

THROUGH

RANGES 17 AND 18 WEST

Of the SALT LAKE BASE AND Meridian,

In the State of U T A H

EXECUTED BY

RALPH GENTRY

In the capacity of U. S. <sup>Transitman</sup> Surveyor, under instructions dated Aug. 6, 1910, issued by the United States Surveyor General to govern surveys included in Group No. 3, which were approved by the Commissioner of the General Land Office, September 12, 1910, pursuant to authority contained in the Act of Congress dated, 1910.

Survey commenced December 6, 1910

Survey completed December 14, 1910.

Per R. Gentry 12 00 00 ✓

E. F. Dunlavy,	Chairman.
John G. Emond,	Chairman.
Chas. V. Merrill,	Chairman.
Ray H. Barton,	Chairman.
Walter Malcom,	Member.
Henry Fessenden,	Member.
Joseph M. Mordant,	Member.
L. J. Duffell,	Member.

1917

## INDEX DIAGRAM.

<i>Township</i>		<i>Range</i>			
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BOOK A-390

INDEX DIAGRAM.

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31	32	33	34	35	36

Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, E. R. Bunbury, John G. Kienenberger, Chas. Merrill and Roy Penn Barton  
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the  
chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that  
we will report the true distances to all notable objects, and the true lengths of all lines that we assist in  
measuring, to the best of our skill and ability, and in accordance with instructions given us, in the <sup>re</sup> survey of  
the Sixth Standard Parallel South, through Ranges 17 and 18 West of the  
S.L.B. & M., Utah.

E R Bunbury - Chas Merrill Chainmen.  
John G. Kienenberger, Roy P Barton Chainmen.

Subscribed and sworn to before me this 6  
day of December, 1910, ~~1900~~



Ralph Gentry  
Instrumentman, G.L.O.

WE, I. Willie Malcolm and  
do solemnly swear that we will well and truly perform the duties of moundman in the establishment  
of corners, according to the instructions given <sup>me</sup> us, to the best of our <sup>my</sup> skill and ability, in the <sup>re</sup> survey of  
the Sixth Standard Parallel South, through Ranges 17 and 18 west of the  
S.L.B. & M., Utah

Willie Malcolm Moundman.  
Moundman.

Subscribed and sworn to before me this 6  
day of December, 1910, ~~1900~~



Ralph Gentry  
Instrumentman, G.L.O.

WE, Sidney Reese and Joseph Murdock  
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners  
and other duties, according to instructions given us, to the best of our skill and ability, in the survey of  
the Sixth Standard Parallel South, through Ranges 17 and 18 west of  
the S.L.B. & M., Utah

Sidney Reese Axman.  
Joseph Murdock Axman.

Subscribed and sworn to before me this 6  
day of December, 1910, ~~1900~~



Ralph Gentry  
Instrumentman, G.L.O.

I, L. S. Nuttall, do solemnly swear that I will well and truly  
perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the  
survey of the Sixth Standard Parallel South, through Ranges 17 and 18 west  
of the S.L.B. & M., Utah

L. S. Nuttall Flagman.

Subscribed and sworn to before me this 6  
day of December, 1910, ~~1900~~



Ralph Gentry  
Instrumentman, G.L.O.

Resurvey Sixth Standard Parallel South through R 17 W.

By letter dated Nov. 9, 1910 by the Surveyor General, I was informed that the cor. of Tp. 30 S R's 16 and 17 W, as established by Nelson and Stum was in the wrong place and therefore instructed not to project the Sixth Standard Parallel South through R 17 W. until a new cor. for Tp. 30 S R's 16 and 17 W was established.

Having projects of this line west on Oct. 31<sup>st</sup>, Nov. 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup>, at time this letter was received, I resurvey this line as follows:

Resurvey commenced Dec. 6, 1910 and executed with a W. T. L. E. Surley Explorer transit No. , the horizontal limb being provided with two double verniers placed opposite to each other reading to single minutes of arc.

The instrument was examined, tested on the true meridian at Salt Lake City, Utah, found correct and was approved by the surveyor general for Utah, August 25, 1910.

I examine the adjustments of the transit and find them correct.

At the cor. of Tp. 30 S R's 16 and 17 W reestablished by Nelson and Stum Nov. 23, 1910 which is an iron post 3 ft. long 3 in in dia., 24 in. in the ground marked and witnessed as described by the Surveyor General; latitude  $38^{\circ}09'30''$  N, longitude  $113^{\circ}38'56''$  W, at  $2^{\text{h}}28^{\text{m}}$  A.M. by my watch which is correct for L. M. T., I observe Polaris at Western elongation in accordance with instructions in the Manual, and mark the line thus determined by a nail driven in a wooden stake set in the ground five chains north of my station.

At 8<sup>am</sup>, I take off the azimuth of Polaris,  $1^{\circ}29'$  to the east, and mark the meridian thus determined by driving a nail in stake firmly set in the ground east of the mark established this morning; the magnetic bearing of said true meridian is  $N16^{\circ}30'W$ , which gives the magnetic declination  $16^{\circ}30'$  East.

I lay off from the meridian an angle of  $90^{\circ}$ , from north to west, and run west on the tangent, S. of sec 36 over slightly rolling land through heavy timber & a scattering undergrowth of sage brush & grass.

No difference between measurements of 4000 chs. by two sets of chainmen.

Resurvey Dixth Standard Parallel South through R 17 W.  
Chains

40.00 N.  $\frac{1}{4}$  link from the tangent

Set an iron post 3 ft. long, 1 in dia., 26 ins in the ground for standard  $\frac{1}{4}$  sec. cor. marked on brass caps  $\frac{1}{4}$  S 36 on N. half from which

A pine 14 ins dia. brs. N  $5^{\circ} 30' E$  29 lbs dist. marked S C  $\frac{1}{4}$  S 36 B T.

I destroy all traces of cor. previously set.

52.00 Leave timber brs. N  $60^{\circ} E$ .

54.50 Bottom of small depression, brs. N  $60^{\circ} E$

59.00 Reenter pine & cedar timber, brs. N  $60^{\circ} E$ .  
Difference between measurements of Bocha, by two sets of chainmen is 2 lbs.; position of middle point

By 1<sup>st</sup> set, 7999 chs.

By 2<sup>nd</sup> set, 8001 chs.; the mean of which is

80.00 N. 1 lb. from the tangent

Set an iron post 3 ft. long, 3 ins dia. 24 ins in the ground for standard cor. of secs. 35 & 36 marked on brass caps.

T 30 S. S. 35 on N. W.

R 17 W S 36 on N. E. <sup>quadrant</sup> from which

A pine 12 ins dia. brs. N  $40^{\circ} W$  26  $\frac{1}{2}$  lbs. dist. marked T 30 S R 17 W S 35 B T.

A pine 10 ins. dia brs. N  $54\frac{1}{2}^{\circ} E$  50 lbs. dist. marked T 30 S R 17 W S 36 B T.

I destroy all traces of cor. previously set.

Land, rolling

Soil, gravelly loam; 3<sup>rd</sup> rate

Timber cedar & juniper pine:

Undergrowth scattering sage brush and bunch grass.

Heavily timbered land 73.00 chs.

S  $89^{\circ} 59.3' W$  on the tangent S. of sec 35  
Over rolling ground, through heavy cedar & juniper pine timber.

30.00 Leave timber NE & SW. Enter heavier undergrowth of sage brush & bunch grass.

39.00 Bottom of small depression, brs. NE.

No difference between measurements of 40.00 Chs. by two sets of chainmen.

Runway Sixth Standard Parallel South through R. 7. W.  
Cham

- 4000 N. 2 lks from the tangent.  
Set an iron post 3 ft long, 1 in dia., 16 ins. in the ground for standard  $\frac{1}{4}$  sec. cor. marked on brass cap  $\frac{1}{4}$  S. 35 on N. half, from which a cedar 16 ins. dia. br. N. 42° W. 179 chs. dist. marked  $\frac{1}{4}$  S. 35 B.T.  
I destroy all traces of cor. previously set.
- 4300 Reenter timber, br. N.E. & S.W. Undergrowth becomes scattering.  
No difference between measurements of 5000 chs. by two sets of chainmen.
- 8000 N. 3 lks. from the tangent.  
Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground for standard cor. of sec 34 and 35 marked on brass cap.  
T. 30 S. S. 34 on N.W. quarter  
R. 17 W. S. 35 on N.E. from which a pine 6 ins. dia. br. N. 51° 45' W. 37 lks. dist. marked T. 30 S. R. 17 W. S. 34 B.T.  
A cedar 12 ins. dia. br. N 56° 15' E, 108 chs. dist. marked T. 30 S. R. 17 W. S. 35 B.T.  
Land, very rolling.  
Soil, gravelly loam; 3<sup>rd</sup> rate.  
Timber, cedar & pinon pine.  
Heavily timbered land 6700 chs.  
I destroy all traces of cor. previously set.

- S 89° 52.6' W on the tangent S. of sec 34.  
over rolling land through heavy timber and a scattering undergrowth of sage brush & grass.
- 1000 Fearo timber, br. N.E. & S.W.  
Undergrowth of sage brush & grass thicker.
- 1200 Bottom of depression, drains N.E.
- 1550 Reenter timber, br. N.E. & S.W.  
Undergrowth scattering.  
No difference between measurements of 4000 chs. by two sets of chainmen.

Primary Sixth Standard Parallel South through R. 17 W.  
Chains

- 40.00 N. 5 links from the tangent,  
Set an iron post 3 ft. long 1 in. dia. 26 ins. in  
the ground for standard  $\frac{1}{4}$  sec. cor. marked  
on brass cap  $\frac{1}{4}$  S. 34 on N. half, from which  
A cedar 8 ins. dia. br. N.  $3^{\circ} 10' W$  71 lbs.  
dist. marked  $\frac{1}{4}$  S. 34 B.T.  
I destroy all traces of cor. previously set.
- 43.75 Wash 10 lbs. wide 1 ft. deep. Course N.E.
- 60.75 Wash 10 lbs. wide 1 ft. deep course N.E.
- 61.10 Old wagon road, brs. N.E. & S.W.  
No difference between measurements of  
80.00 chs. by two sets of chainmen
- 80.00 N. 7 links from the tangent,  
Set an iron post 3 ft. long, 3 ins. dia. 24 ins.  
in the ground for standard cor. of secs. 33 &  
34 marked on brass cap  
T. 30 S. S. 33 on N.W.  
R. 17 W. S. 34 on N.E. <sup>quadrant</sup> from which  
A pine 10 ins. dia. br. N  $59^{\circ} 25' W$  42 lbs. dist  
marked T. 30 S. R. 17 W. S. 33 B.T.  
A cedar 12 ins. dia. br. N  $58^{\circ} 15' E$  43 lbs. dist  
marked T. 30 S. R. 17 W. S. 34 B.T.  
Land, very rolling.  
Soil, gravelly loam; 3<sup>rd</sup> rate  
Timber, Cedar & pinion pine.  
Undergrowth, scattering sage brush & bunch  
grass.  
Heavily timbered land 74.50 chs.  
I destroy all traces of cor. previously set.  
Dec. 6, 1910

Dec. 7, 1910.

S  $89^{\circ} 58' W$  on the tangent S. of sec 33  
over very rolling land through heavy timber  
and undergrowth of scattering sage brush  
and grass.

- 22.00 Wash 10 lbs. wide, 2 ft. deep course N.E.

No difference between measurements  
of 40.00 chs. by two sets of chainmen.

- 40.00 N. 10 links from the tangent,  
Set an iron post 3 ft. long, 1 in. dia. 26 ins. in

Primary Chains Sixth Standard Parallel South through R. 17 W.

the ground for standard  $\frac{1}{4}$  sec. cor. marked on brass cap  $\frac{1}{4}$  S. 33 on N. half from which  
 A pine 10 ins. dia. brs. N  $18^{\circ} 10' W$ . 52 lbs. dist. marked  $\frac{1}{4}$  S. 33 B.T.  
 I destroy all traces of cor. previously set.  
 65.00 Top of ridge, brs. N  $30^{\circ} E$   
 70 ft. above  $\frac{1}{4}$  cor. Descend  
 72.00 Bottom of depression, drains N.  
 32 ft. below top of ridge. Ascend.  
 No difference between measurements of 80.00 chs. by two sets of chainmen.  
 80.00 113 links from the tangent,  
 Set an iron post 3 ft. long, 3 ins. dia, 29 ins. in the ground for standard cor. of secs 32 & 33 marked on brass cap.  
 T 30 S. S.  $32^{\circ}$  on N. W  
 R 17 W. S  $33^{\circ}$  on N. E, <sup>gradient</sup> from which  
 A pine 8 ins. dia. brs N.  $64^{\circ} 35' W$  59  $\frac{1}{2}$  lbs. dist. marked T 30 S R 17 W S.  $32^{\circ}$  B.T.  
 A cedar 8 ins. dia. brs N.  $60^{\circ} 30' E$ . 79 lbs. dist. marked T. 30 S R 17 W S.  $33^{\circ}$  B.T.  
 Land rough & very rolling.  
 Soil, stony; 4<sup>th</sup> rate.  
 Timber, cedar & juniper pine.  
 Undergrowth, very scattering sage brush & grass.  
 Heavily timbered land 80.00 chs.  
 I destroy all traces of cor. previously set.

S  $89^{\circ} 57.3' W$ . on the tangent S. of sec. 32 over very rolling & rough land through heavy timber & undergrowth of scattering sage brush & grass.  
 25.25 Wash, 10 lbs. wide 1 ft deep, course S E.  
 Ascend slope of spur.  
 No difference between measurements of 40.00 chs. by two sets of chainmen.  
 40.00 116 links from the tangent,

Running Sixth Standard Parallel South through R. 17 W  
Chain

Set an iron post 3 ft. long, 1 in dia 26 ins  
in the ground for standard 1/4 sec cor.  
marked on brass cap 1/4 S 32 on N. half,  
from which  
A pine 10 ins dia. br. N 79° E 24 lks. dist  
marked 1/4 S 32 B.T.  
25 ft. above wash.  
I destroy all traces of cor. previously set  
41.00 Top of spur, projects N. E.  
5 ft. above 1/4 sec cor. Descend  
50.00 Bottom of depression drains N. E.  
35 ft. below top of spur. Ascend slightly  
64.50 Top of spur, projects N. 15° E  
27 ft. above bottom of depression. Descend.  
No difference between measurements  
of 80.00 chs. by two sets of chainmen  
80.00 A. 70 links from the tangent,  
Set an iron post 3 ft. long, 3 ins dia.  
24 ins. in the ground for standard cor. of  
secs 31 & 32 marked on brass cap,  
T 30 S. S. 31 on N. W.  
R 17 W. S 32 on N. E, <sup>107 feet</sup> from which  
A cedar 8 ins. dia. br. N 69° W 148 chs. dist.  
marked T. 30 S R. 17 W. S 31 B.T.  
A pine 8 ins. dia. br. N 40° 30' E 79 1/2 lks.  
dist. marked T. 30 S R. 17 W. S 32 B.T.  
Land, rolling.  
Soil gravelly loam; 3<sup>rd</sup> rate.  
Timber, cedar & pinion pine.  
Undergrowth, sage brush & bunch grass.  
Heavily timbered land 80.00 chs.  
I destroy all traces of cor. previously set.

8 E 9° 56.8 W on the tangent S. of sec 31  
over rolling ascending land through  
timber and undergrowth of sage brush  
& grass.  
10.00 Timber, scattering N. S.  
20.00 Top of ascent, br. N. E. T. S. W.

Resurvey Chains Sixth Standard Parallel South through R 17 W.

Descend slightly  
 No difference between measurements of 40.00 chs. by two sets of chainmen.  
 40.00 N. 27 links from the tangent.  
 Set an iron post 3 ft. long, 1 in. dia, 7/16 ins. in the ground for standard 1/4 Sec. cor. marked on brass cap 1/4 S. 31 on N. half, from which  
 A pine 10 ins. dia. brs. N 3°-30' E 3.08 chs. dist. marked SE 1/4 S 31 B.T.  
 Destroy all traces of cor. previously set.  
 40.15 Old wagon road, bis. N 75° E and S. 30° W.  
 41.80 Wash 15 lbs wide 4 ft. deep, course N 80° E.  
 52.75 Bottom of descent, drains S.E.  
 Ascend slightly.  
 No difference between measurements of 80.00 chs. by two sets of chainmen.  
 80.00 N. 28 links from the tangent,  
 Set an iron post 3 ft. long, 3 ins. dia, 7/8 ins. in the ground for standard cor. of T. 30 S R. 17 + 18 W. marked on brass cap,  
 T 30 S on N. half, S. 31 on N. E. <sup>1/4</sup> quadrant  
 R 18 W S 36 on N. W. <sup>1/4</sup> quadrant  
 R 17 W. S. 31 on N. E. <sup>1/4</sup> quadrant  
 from which  
 A pine 8 ins dia. brs. N 2°-30' W. 1.11 chs. dist. marked T 30 S. R. 18 W. S. 36 B.T.  
 A pine 8 ins dia. brs. N 4°-25' E. 1.19 chs. dist. marked T. 30 S. R 17 W S. 31 B.T.  
 Land, rolling & dry hilly.  
 Soil, stony; 4<sup>th</sup> rate  
 Timber, cedar & pinion pine.  
 Undergrowth, scattering sage brush and grass.  
 Heavily timbered land 10.00 chs.  
 Destroy all traces of cor. previously set.

Dec 7, 1910

Ranney Sixth Standard Parallel South through R. 18 W  
Chains

December 9, at cor. of Tps. 30 S. R. 17, 18 W.;  
latitude:  $38^{\circ} 09' 30''$  N, longitude  $113^{\circ} 45' 31''$  W, at  $2^h 16^m$  a.m. by my watch which  
is correct for l.m.t., I observe Polaris  
at western elongation in accordance with  
instructions in the Manual, and mark the  
line thus determined, by a nail driven in  
a wooden stake set in the ground five  
chains north of my station.

At 8 a.m. l.m.t. I turn off the azimuth of  
Polaris,  $1^{\circ} 29'$  to the East, and mark the  
meridian thus determined, by driving a  
nail in stake, firmly set in the ground east  
of the mark established this morning; the  
magnetic bearing of said true meridian  
is N.  $16^{\circ} 30'$  W, which gives the magnetic  
declination  $16^{\circ} 30'$  East.

I lay off from the meridian an angle  
of  $90^{\circ}$ , from north to west, and run  
west on the tangent, S of sec 36 over  
ascending land through scattering  
cedar & piñon pine timber and undergrowth  
of sage brush 2 ft. high and scattering grass.

- 8.25 Wagon road brs S.  $70^{\circ}$  W and N.  $20^{\circ}$  E  
13.50 Timber becomes thicker, brs N.E. & S.W.  
Undergrowth more scattering  
25.00 Printer scattering timber, brs N. & S  
Undergrowth, thicker.  
36.50 Top of ascent, brs N. & S. 395 ft. above  
Tp. cor. Descend  
Difference between measurements of 4000  
chs., by two sets of chainmen is 10 lks.;  
position of middle point  
By 1<sup>st</sup> set, 4005 chs.  
By 2<sup>nd</sup> set, 3995 chs.; the mean of which is  
4000 N.  $\frac{1}{4}$  link from the tangent,  
Set an iron post 3 ft. long, 1 in. dia.,  $\frac{1}{16}$  ins. in  
the ground for standard  $\frac{1}{4}$  sec. cor. marked  
on brass cap  $\frac{1}{4}$  S.  $36^{\circ}$  on N. half, from which  
A pine 10 ins dia. brs N.  $78^{\circ} 30'$  E. 194 chs. dist.  
marked  $\frac{1}{4}$  S.  $36^{\circ}$  B.T.  
35 ft. below top of ascent. Descend.

Primary Sixth Standard Parallel South through R. 18 W.  
Chains

49.95	Bottom of depression, drains S. 62 ft. below 1/4 sec. cor. Ascend.
75.00	Top of spur, projects N15° E about 10 chs. 370 ft. above bottom of depression. Descend.
80.00	Difference between measurements of 80.00 chs., by two sets of chainmen is 4 lks.; position of middle point By 1 <sup>st</sup> set, 79.98 chs. By 2 <sup>nd</sup> set, 80.02 chs.; the mean of which is
	N. 1 lk. from the tangent, Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground for standard cor. of secs. 35 and 36 marked on brass cap. T 30 S. S. 35 on N. W. <sup>gradient</sup> R. 18 W. S. 36 on N. E. <sup>from which</sup> A pine 14 ins. dia. br. N 72° 30' E, 192 1/2 chs. dist. marked T. 30 S. R. 18 W. S. 36. BT! Erect mound of stones, 2 ft. base, 1 1/2 ft. high N. of cor. No other bearing trees within limits 30 ft. below top of spur. Land, very mountainous. Soil, stony; 4 <sup>th</sup> rate. Timber, very scattering cedar, pine and mahogany. Undergrowth, scattering sage brush and grass. Mountainous timber & land 80.00 chs
	S 89° 59.3' W. on the tangent, S. of sec 35 over ascending mountainous land, through scattering cedar, pine and mahogany timber and undergrowth of scattering sage brush and grass.
5.75	Wash, 12 lks. wide, 2 1/2 ft. deep, course N. E. 80 ft. below sec. cor. Ascend.
22.50	Top of ascent, br. N. W. T. S. E.

Runway of Sixth Standard Parallel South, through P. 18 W.  
Chains

- 14.3 ft. above wash. Descend
- 25.30 Wash, 6 lks. wide 4 ft. deep, course S.E.  
15 ft. below top of ascent. Descend.  
Water in this wash 2 ins. deep.
- 30.50 Enter thick growth of mahogany, brs. N. 7 S.  
No difference between measurements of  
40.00 40.00 chs. by two sets of chainmen.  
N. 2 lks. from the tangent,  
Set an iron post 3 ft. long, 1 in. dia., 26 ins. in  
the ground for standard  $\frac{1}{4}$  sec. cor. marked  
on brass cap  $\frac{1}{4}$  S. 35 on N. half, from  
which  
A Mahogany 16 ins. dia brs. N 18° 40' W 79  $\frac{1}{2}$  lks.  
dist. marked  $\frac{1}{4}$  S. 35 B.T.  
 $\frac{1}{4}$  sec. cor. stands on N. E. slope of  
mountain 300 ft. above wash. Ascend  
Dec 9, 1910  
December 13, 1910
- 44.50 Top of knobl. projects about 6 chs. N.W.  
and 10 chs. S.E. 47 ft. above  $\frac{1}{4}$  sec cor  
Descend.  
Land here becomes almost bare of timber;  
a very few scattering gnarled asp, balsam  
pine and mahogany.
- 49.50 Bottom of descent, brs N.  
60 ft. below top of knobl. Ascend.
- 54.75 Little Pinto spring, brs. N. 45 lks. dist.
- 64.50 East top of spur, projects N 15 E about  
10 chs. 287 ft. above bottom of descent.  
Thence west on a near level line to
- 69.00 West top of spur, projects N.E. about 8  
chs. Descend.  
Difference between measurements of 80.00  
chs. by two sets of chainmen is 16 lks.;  
position of middle point  
By 1<sup>st</sup> set 79.92 chs.  
By 2<sup>nd</sup> set 80.08 chs., the mean of which is  
80.00 N. 3 lks from the tangent,  
Set an iron post 3 ft. long, 3 ins. dia., 24 ins.  
in the ground for standard sec. cor. of sec.  
34 and 35 marked on brass cap  
T 30 S. S. 34 on N. W.

Resurvey of Sixth Standard Parallel South through R. 18. W.  
Chains

R. 18 W. S. 35 on N. E. <sup>quadrant</sup> from which  
A quakern asp 8 ins. dia. brs. N 75° 35' E. 1.80  
chs. dist. marked T 30 S R. 18 W. S. 35 BT.  
Erect mound of stone to the N. of iron post.  
2 ft. base, 1 1/2 ft. high

Sec. cor. stands on N. slope of ridge 30  
ft. below west top of spur.

Land, mountainous.

Soil, stony; 4<sup>th</sup> rate.

Timber, very scattering quakern asp and  
balsam pine.

Undergrowth, sage brush 1 ft. high and  
scattering grass.

Mountainous, scattering timbered land  
80.00 chs.

S. 89° 58.6' W. on the tangent S. of S. 34  
over mountainous descending land, through  
scattering quakern asp and balsam pine  
and undergrowth of scattering sage  
brush and grass.

0.80 Wash 8 lbs. wide 3 ft. deep, Course N.E.  
6 ft. below sec. cor. Ascend

25.85 Top of very rocky ridge, brs. N 70° W and  
S 20° E. 665 ft. above wash. Descend.

No difference between measurements of  
40.00 chs. by two sets of chainmen.

40.00 N. 5 lbs. from the tangent.

Set an iron post 3 ft. long, 1 in. dia, 26 ins.  
in the ground for standard 1/4 sec. cor. marked on  
brass cap 1/4 S 34 on N. half; and erect a mound of  
stone, 2 ft. base, 1 1/2 ft. high N. of cor.

1/4 sec. cor. stands on S. slope of ridge, 253  
ft. below the top. Ascend.

44.25 Top of rocky spur, projects S.W. about  
16 chs. 22 ft. above 1/4 sec. cor. Descend.

58.65 Bottom of descent, brs. N 70° E and S 20° W.  
415 ft. below top of spur. Ascend.

67.00 Top of ascent brs. N.E. and S.W.

80' above point of ascent. Thence west

Resurvey of Sixth Standard Parallel South through R. 18. W.  
Chains

74.50 over very rocky land on a near level line to  
Point of descent, brs. N.E. & S.W.  
Descend along very rocky ledge  
Difference between measurements of  
80.00 chs. by two sets of chainmen is  
8 lks.; position of middle point  
By 1<sup>st</sup> set 79.96 chs.  
By 2<sup>nd</sup> set 80.04 chs., the mean of which is  
N. 7 links from the tangent,  
Set an iron post 3 ft. long, 3 ins. dia., 12 ins.  
in the ground to solid rock with mound of stone, 3 ft. base,  
12 ins. high around post for standard cor. of sec. 33 and  
34 marked on brass cap.  
T 30 S. S. 33 on N.W.  
R. 18 W. S 34 on N.E. gradient  
And erect a mound of stone, 3 ft. base 11/2 ft. high, N of cor.  
Sec. cor. stands on W. slope of ridge 190 ft.  
below point of descent.  
Land, rugged & mountainous.  
Soil, stony; 4<sup>th</sup> rate.  
Timber, scattering scrub cedar, mahogany  
and pine.  
Undergrowth, scattering sage bush & grass.  
Mountainous and very scattering timbered  
land 80.00 chs.

12.00 S 89° 58' W on the tangent S. of sec. 33,  
over descending mountainous land through  
scattering scrub timber and undergrowth  
of scattering sage bush and grass.  
Bottom of descent, brs. N. & S.  
200 ft. below sec. cor. Ascend.  
17.50 Top of rocky knoll, brs. N. E. about 14 chs.  
and S W about 14 chs.  
60 ft. above point of ascent. Descend.  
24.00 Enter scattering timber, pine & cedar, brs.  
N. T S.  
Difference between measurements of  
40.00 chs. by two sets of chainmen is 16  
lks.; position of middle point

Runway of Sixth Standard Parallel South through R. 18 W.  
Chains

- By 1<sup>st</sup> set, 4,008 chs.  
 By 2<sup>nd</sup> set 3,972 chs., the mean of which is  
 40.00 N. 10' links from the tangent.  
 Set an iron post 3 ft. long, 1 in dia., 76 ins.  
 in the ground for standard  $\frac{1}{4}$  sec. cor.  
 marked on brass cap  $\frac{1}{4}$  S. 33 on  
 N. half, from which  
 A pine 10 ins. dia. brs. N 39° 45' W. 31 lks.  
 dist. marked  $\frac{1}{4}$  S. 33 B. T.  
 $\frac{1}{4}$  Sec. cor. stands near the bottom and  
 on west slope of knoll 530 ft. below the  
 top. Descend. Land here becomes hilly & broken.  
 59.35 Old wagon road, brs. N. & S.  
 69.20 Wash 10 lks. wide 2 ft. deep, course S.W.  
 192 ft. below  $\frac{1}{4}$  sec. cor.  
 Running water here 3 lks. wide, 2 ins. deep.  
 Level to  
 69.60 Old wagon road, brs. N. E. & S. W.  
 73.00 Wash 8 lks. wide, 2 ft. deep, course S. Ascend  
 73.50 Enter dense timber, pine and cedar, brs. N & S.  
 78.50 Top of spur projects S.W. about 8 chs.  
 Very rocky. 55 ft. above wash. Descend  
 Reenter scattering timber, pine & cedar,  
 brs. N. & S.  
 No difference between measurements of  
 80.00 N. 13' links from the tangent.  
 Set an iron post 3 ft. long, 3 ins. dia., 12  
 ins. in the ground and erect mound of  
 stone around post for standard cor. of  
 secs 32 and 33 marked on brass cap  
 T 30 S. S. 32 on N. W.  
 R. 18 W. S. 33 on N. E., <sup>quadrant</sup> from which  
 A pine 6 ins. dia. brs. N 42° 15' W. 110 chs.  
 dist. marked T. 30 S. R. 18 W. S. 32 B. T.  
 A pine 6 ins. dia. brs. N. 16° 10' E. 54 lks.  
 dist. marked T. 30 S. R. 18 W. S. 33 B. T.  
 Sec. cor. stands on S.W. slope of spur  
 13 ft. below the top.  
 Land, very hilly and broken.  
 Soil, stony; 4<sup>th</sup> rate.  
 Timber, scattering pine and cedar.

Resurvey of Sixth Standard Parallel South through R. 18 W.  
Chains

Undergrowth, scattering sage brush and grass  
Scattering timbered land 80.00 chs.

Dec 13, 1910

December 14, 1910

S 89° 57.3' W on the tangent S. of sec 32  
over very broken hilly land through scattering  
timber, pine & cedar and undergrowth  
of sage brush and grass.

8.45 Wash 10 lbs. wide, 3 ft. deep, course S.  
102 ft. below sec. cor. Ascend.

18.50 Enter dense timber, N & S.

Undergrowth, scattering

26.00 Top of spur projects S.W. about  
8 chs. 105 ft. above wash. Descend

33.70 Bottom of depression, drains S 10° W  
50 ft. below top of spur. Ascend.

Difference between measurements of  
40.00 chs., by two sets of chainmen is 2 lbs.;  
position of middle point

By 1<sup>st</sup> set, 39.99 chs.

40.00 By 2<sup>nd</sup> set, 40.01 chs; the mean of which is  
N. 16 links from the tangent.

Set an iron post 3 ft. long, 1 in. dia., 26  
ins. in the ground for standard 1/4 sec. cor.  
marked on brass cap 1/4 S. 32 on N. half,  
from which,

A pine 8 ins. dia. brs. N 49° W. 13 lbs. dist.  
marked 5/4 S. 32 B.T.

1/4 sec. cor. stands on east slope of ridge  
60 ft. above bottom of depression.

Ascend along east slope of ridge

42.00 Top of ridge, brs. N. E. & S.

5 ft. above 1/4 sec. cor. Descend

Enter scattering timber, pinion pine  
and cedar. Undergrowth, thicker, brs  
N. E. & S. W.

46.90 Bottom of depression, drains N.

7.8 ft. below top of ridge. Ascend

15

Runway of Sixth Standard Parallel South through R. 18 W  
Chains

- 50.00 Top of ascent, bis. N. E. & S. W  
15 ft. above bottom of depression. Near level line went along side hill to
- 54.50 Point of descent, bis. N. W. & S. E
- 61.25 Bottom of depression, drains S. W.  
102 ft. below point of descent. Ascend.  
Enter dense timber, pinion pine and cedar, bis. N. E. & S. W. Undergrowth, very scattering.
- 67.00 Top of ascent bis. N. W. & S. E.  
30 ft. above bottom of depression. Descend.  
Difference between measurements of 80.00 chs., by two sets of chainmen is 8 lks.; position of middle point  
By 1<sup>st</sup> set, 80.64 chs.  
By 2<sup>nd</sup> set, 79.96 chs.; the mean of which is
- 80.00 N. 70 links from the tangent,  
Set an iron post 3 ft. long, 3 ins dia., 14 ins. in the ground and erect mound of stone around post for standard cor. of sec. 31 and 32 marked on brass caps  
T. 30 S. S. 31 on N. W.  
R. 18 W. S 32 on N. E. <sup>74<sup>th</sup> markant</sup> from which  
A pine 8 ins. dia. bis. N. 27° 30' W. 38 lks. dist. marked T. 30 S. R. 18 W. S 31 B. T.  
A pine 10 ins. dia. bis. N. 75° 45' E 13 lks. dist., marked T. 30 S. R. 18 W. S 32 B. T.  
Dec. cor. is 73 ft. below top of ascent.  
Land, hilly and broken.  
Soil stony; 4<sup>th</sup> rate.  
Timber, pinion pine and cedar.  
Undergrowth, very scattering sage brush and grass.  
Broken timbered land 80.00 chs.

S. 89° 56.6' W. on the tangent S. of sec 31 over broken, hilly and slightly descending land through timber, pinion pine and

Resurvey of Sixth Standard Parallel South through R. 18 W.  
Chains

- cedar and very scattering undergrowth of sage brush and grass.
- 39.90 Wash, 8 lks. wide, 2 ft. deep, course S. W.  
Difference between measurements of 40.00 chs., by two sets of chainmen is 4 lks.; position of middle point  
By 1<sup>st</sup> set, 40.02 chs.  
By 2<sup>nd</sup> set, 39.98 chs.; the mean of which is 40.00 N. 24 links from the tangent,  
Set an iron post 3 ft. long, 1 in. dia.,  $\frac{1}{8}$  ins. in the ground for standard  $\frac{1}{4}$  sec. cor. marked on brass cap  $\frac{1}{4}$  S. 31 on N. half, from which  
A pine 6 ins. dia. brs. N. 30°-10' W 20 lks. dist. marked  $\frac{1}{4}$  S. 31 B.T.
- 50.00 4 ft. above wash. Descend slightly.  
Wagon road, brs. N & S.  
Enter scattering timber, cedar & piñon pine brs. N & S.
- 59.25 Wash 10 lks. wide, 6 ins. deep, course S. W.  
72.75 Wash 20 lks. wide, 6 ins. deep, course S. W.  
78.00 Enter dense timber, cedar and piñon pine brs. N & S.
- Difference between measurements of 80.00 chs., by two sets of chainmen is 2 lks.; position of middle point  
By 1<sup>st</sup> set, 79.99 chs.  
By 2<sup>nd</sup> set, 80.01 chs.; the mean of which is 80.00 N. 28 links from the tangent,  
Set an iron post 3 ft. long, 3 ins. dia.  $\frac{1}{8}$  ins. in the ground for standard cor. of T. 30 S. R. 18 and 19 W. marked on brass cap, T 30 S on N. half.  
R. 19 W. S. 36 on N. W.  
R. 17 W. S. 31 on N. E. <sup>quadrant</sup> from which  
A pine 6 ins. dia. brs. N. 58°-30' W 48 lks. dist. marked T 30 S R 19 W S. 36 B.T.  
A pine 6 ins. dia. brs. N. 65°-15' E 40  $\frac{1}{2}$  lks. dist. marked T 30 S. R. 18 W. S. 31 B.T.
- Land, very rolling  
Soil, gravelly loam; 3<sup>rd</sup> rate  
Timber, cedar & piñon pine

11  
Resurvey of Sixth Standard Parallel South through R. 18 W.  
Chain

Undergrowth, scattering sage brush and grass.  
Scattering timbered land, 80,000 chs.

Dec 14-1910  
Ralph Kuntz  
Instrumentman S. L. O.

**Volume**

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FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Ralph Gentry, Instrumentman General Land Office, United States Deputy Surveyor, to assist in running, measuring, and marking the lines and corners described in the foregoing field notes of the survey of the Sixth Standard Parallel South, through Ranges 17 and 18 West, S.L.B. & M., Utah, showing the respective capacities in which they acted:

- E. R. Bunbury, Chas. Merrill, Chainmen.
John G. Kienenberger, Chainman.
Roy Penn Barton, Chainman, Moundman.
Willie Malcolm, Moundman.
Sidney Reese, Axman.
Joseph Murdock, Axman.
L. S. Nuttall, Flagman.

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Ralph Gentry, Instrumentman General Land Office, United States Deputy Surveyor, in surveying all those parts or portions of the resurvey of the Sixth Standard Parallel South through Ranges 17 and 18 West

of the Salt Lake Base and meridian, State of Utah, which are represented in the foregoing field notes as having been surveyed by him and under his direction; and that said survey has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the corner monuments established, according to the instructions furnished by the United States Surveyor

General for Utah.

- Handwritten signatures: E. R. Bunbury, Chas. Merrill, John G. Kienenberger, Roy Penn Barton, Willie Malcolm, Sidney Reese, Joseph Murdock, L. S. Nuttall, with their respective titles.

Subscribed and sworn to before me this 14 day of December, 1910.

Signature of Ralph Gentry, Instrumentman, G.L.O.



TRANSITMAN.  
FINAL OATH OF UNITED STATES ~~DEPUTY SURVEYOR~~ ~~XXXX~~

I, Ralph Gentry, United States Transitman, ~~United States Deputy Surveyor~~, do solemnly swear that, in pursuance of a contract received from Thomas Hull, United States Surveyor General for Utah, bearing date of the 6 day of August, 1910, ~~1906~~, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of resurvey of Sixth Standard Parallel South, through Ranges 17 and 18 West

Base and \_\_\_\_\_ of the Salt Lake meridian, in the Utah State of Utah, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such <sup>re</sup>survey.

*Ralph Gentry*  
U. S. Transitman and Office  
~~United States Deputy Surveyor.~~

Subscribed by said Ralph Gentry, and sworn to before me  
this 15 day of March 1911, 190

*Thomas Hull*  
U. S. Surveyor-General  
for Utah.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, Feb. 26, 1914. ~~XXXX~~

The foregoing field notes of the <sup>re</sup>survey of Sixth Standard Parallel South, through Ranges 17 and 18 West of the Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry, U. S. Transitman and Land Office his special instructions under his contract No. 2, dated August 6, 1910, ~~1906~~, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the ~~resurveys~~ surveys they describe, are hereby approved.

*Thomas Hull*  
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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BOOK A-390

# FIELD NOTES

*ME*

OF THE SURVEY OF THE

SUBDIVISION

OF

TOWNSHIP NO. 31 SOUTH

RANGE NO. 18 WEST.

Of the SALT LAKE BASE AND Meridian,

In the State of U T A H

EXECUTED BY

RALPH GENTRY AND ERIC H. ANDERSON.

Transitmen

In the capacity of U. S. Surveyors, under instructions dated August 6, 1910,

issued by the United States Surveyor General to govern surveys included in

Group No. 3, which were approved by the Commissioner of the General Land

Office, September 12, 1910, pursuant to authority contained in the Act of

Congress dated 1910

Survey commenced November 27, 1910

Survey completed December 21, 1910

E. R. Bunbury,  
 Chas. S. Merrill,  
 John G. Kionenberger,  
 Lawrence D. Simmons,  
 Roy Penn Barton,  
 L. S. Nuttall,  
 W. Malcolm,  
 Sidney Reese,  
 Joseph Murdock,  
 Roy Penn Barton,

Chainman.  
 Chainman.  
 Chainman.  
 Chainman.  
 Chainman.  
 Moundman.  
 Moundman.  
 Axman.  
 Axman.  
 Flagman.

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For preliminary affidavits of Merrill and Simmons, as chainmen; Nuttall and Malcolm as moundmen; Murdock as axman; and Barton as flagman and chainman, see book "F" T. 31 S. R. 17 W.

For preliminary affidavit of Reese, as axman, see book "G" T. 32 S., R. 18 W.

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INDEX DIAGRAM.

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Meanders Page.....

PRELIMINARY OATHS OF ASSISTANTS.

WE, E. R. Bunbury and John Kienerberger  
do solemnly swear that we will well and faithfully execute the duties of chainmen; that we will level the chain upon even and uneven ground, and plumb the tally pins, either by sticking or dropping the same; that we will report the true distances to all notable objects, and the true lengths of all lines that we assist in measuring, to the best of our skill and ability, and in accordance with instructions given us, in the survey of Subdivision of T. 31 S., R. 18 W., of the S.L.B. & M., Utah.

E. R. Bunbury, Chainman.  
John Kienerberger, Chainman.

Subscribed and sworn to before me this 27  
day of November, 1910. ~~XXX~~

Ralph Gentry

Instrumentman C.L.O.



WE, \_\_\_\_\_ and \_\_\_\_\_  
do solemnly swear that we will well and truly perform the duties of moundmen in the establishment of corners, according to the instructions given us, to the best of our skill and ability, in the survey of \_\_\_\_\_

\_\_\_\_\_, Moundman.

\_\_\_\_\_, Moundman.

Subscribed and sworn to before me this \_\_\_\_\_  
day of \_\_\_\_\_, 190 \_\_\_\_\_



WE, \_\_\_\_\_ and \_\_\_\_\_  
do solemnly swear that we will well and truly perform the duties of axmen in the establishment of corners and other duties, according to instructions given us, to the best of our skill and ability, in the survey of \_\_\_\_\_

\_\_\_\_\_, Axman.

\_\_\_\_\_, Axman.

Subscribed and sworn to before me this \_\_\_\_\_  
day of \_\_\_\_\_, 190 \_\_\_\_\_



I, \_\_\_\_\_, do solemnly swear that I will well and truly perform the duties of flagman according to instructions given me, to the best of my skill and ability, in the survey of \_\_\_\_\_

\_\_\_\_\_, Flagman.

Subscribed and sworn to before me this \_\_\_\_\_  
day of \_\_\_\_\_, 190 \_\_\_\_\_



## Chains

Survey commenced November 27, 1910, and executed with a W. and L. E. Gurley light mount in transit with solar attachment. The horizontal limb is provided with two double verniers placed opposite each other reading to single minutes of arc; which is also the least count of the verniers of the latitude and declination arcs. The instrument was examined, tested on the true meridian at Salt Lake City, found correct and was approved by the Surveyor General for Utah, August 25, 1910.

I examine the adjustments of the transit, and correct the level error, then to test the solar apparatus by comparing its indications, resulting from solar observations made during a.m. and p.m. hours with a meridian determined by observations on Polaris, I proceed as follows:

At cor. of secs. 1, 2, 35 and 36 on the S. bdy. of the Tp. heretofore described, latitude  $38^{\circ}04'N$ . longitude  $113^{\circ}47'W$ . I set off  $38^{\circ}04'$  on lat. arc;  $21^{\circ}04'S$ . on the decl. arc; and at 2h 48m p.m., l.m.t., determine with the solar a meridian and mark a point thereof on a stake driven in the ground 5 chs. N. of the cor.

November 27, 1910.

November 28: At 2h 59m a.m., l.m.t., I observe Polaris at western elongation, in accordance with Manual of Instructions and mark a point in the line thus determined on a peg driven in the ground 5 chs. N. of my station.

At 8h 30m a.m., l.m.t., I lay off the azimuth of Polaris  $1^{\circ}29'$  to the east and mark the meridian thus determined by marking the peg set November 27, on which the meridian falls 0.5 ins. west of the mark determined by the solar.

At 9h 00m a.m., l.m.t., I set off  $38^{\circ}04'$  on the lat. arc;  $21^{\circ}12'S$ . on the decl. arc; and mark a point in the

Chains

meridian determined with the solar, by marking the stake already set 5 chs. N. of my station; this mark falls 0.2 ins. west of mark determined by Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for meridians respectively about 0'26" east and 0'11" west of the meridian established by the Polaris observation.

Therefore I conclude that the adjustments of the instrument are satisfactory.

The magnetic bearing of the true meridian at 8h 15m a.m. is N.16°15'W. the angle thus determined gives the mag. decl. 16°15'E.

Thence I run

N.0°01'W. bet. secs. 35 and 36.

Over rolling and gently ascending land.

0.25 Wash, 25 lks. wide, 2 ft. deep, course N.85°W.

4.00 Enter scattering cedar and pinon pine with undergrowth of scattering sagebrush, bears E. and W.

8.00 Wash, 5 lks. wide, 1 ft. deep, course SW.

12.00 Leave scattering enter heavy timber, bears E. and W.

40.00 Set an iron post 3 ft. long, 1 in. in dia., 15 ins. in

the ground, to solid rock, mound of stone around post

for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 35 on W

half and S 36 on E half, from which

A pinon pine 12 ins. dia., brs. N.76°18'W.,

43 lks. dist., marked  $\frac{1}{4}$  S 35 B T

A pinon pine, 6 ins. dia., brs. N.74°41'E.,

55 lks. dist., marked  $\frac{1}{4}$  S 36 B T

Descend gently.

44.00 Wash, 15 lks. wide, 18 ins. deep, course SW.

Ascend gently.

November 28: At 0h 12m p.m. l.m.t., I set off 21°14'S.

on the decl. arc; and observe the sun on the meridian

the resulting lat. is 38°05'.

Subdivision of T. 31 S., R. 18 W.

Chains

70.00 Top of small ridge, bears NE. and SW. 106 ft. above wash.  
 Descend.

72.75 Wash, 5 lks. wide, 1 ft. deep, course SW.  
 Ascend gently.

76.00 Top of small ridge, bears NE. and SW., 18 ft. above wash.  
 Descend gently.

80.00 Set an iron post 3 ft. long, 2 ins. dia., 14 ins. in the ground, to solid rock, mound of stone around post, for cor. of secs. 25, 26, 35 and 36, marked on brass cap  
 T 31 S S 26 in N W  
 R 18 W S 25 in N E  
 S 36 in S E. and  
 S 35 in S W. quadrant, from which  
 A cedar 12 ins. dia., brs. N. 51° 55' E., 1.62 chs. dist., marked T 31 S R 18 W S 25 B T  
 A cedar, 12 ins. dia., brs. N. 47° 54' W., 86 lks. dist., marked T 31 S R 18 W S 26 B T  
 A cedar, 10 ins. dia., bears S. 52° 15' W., 66 lks. dist., marked T 31 S R 18 W S 35 B T  
 A pinon pine, 10 ins. dia., bears S. 61° 04' E., 83 lks. dist., marked T 31 S R 18 W S 36 B T  
 Land, rolling.  
 Soil, gravelly loam and rocky, 3rd and 4th rate.  
 Timber, dense cedar and pinon pine 68 chs., scattering timber 8 chs., undergrowth scattering sagebrush.

40.00 N. 89° 59' E. on a random line bet. secs. 25 and 36.  
 Set temp. 1/4 sec. cor.

80.30 Intersect E. bdy. of Tp. 11 lks. S. of cor. of secs. 25, 30, 31 and 36, heretofore described.  
 Thence I run S. 89° 54' W. on a true line bet. secs. 25 and 36.  
 Over rolling mountainous land.  
 Descend.

Subdivision of T. 31 S., R. 18 W.

Chains

- 1.00 Wash, 15 lks. wide, 3 ft. deep, course SW., 22 ft. below sec. cor.  
Ascend.
- 5.00 Top of small ridge, bears N. and S., 36 ft. above wash.  
Descend.
- 13.30 Wash 20 lks. wide, 5 ft. deep; course SE.  
Ascend.
- 26.30 Top of ridge, bears N. and S., 194 ft. above wash.  
Descend.
- 27.30 Wash 10 lks. wide, 2½ ft. deep; course S. 8 ft. below top of ridge.  
Ascend.
- 34.30 Top of spur, bears N. and S., 34 ft. above wash.  
Descend.
- 40.15 Set an iron post 3 ft. long, 1 in. in dia., 20 ins. in the ground to solid rock, mound of stone around post; for ¼ sec. cor., marked on brass cap ¼ S 25 on N half and S 36 on S half, from which  
A pinon pine, 8 ins. dia., brs. N.51°12'W.,  
25 lks. dist., marked ¼ S 25 B T  
A pinon pine 12 ins. dia., brs. S.37°37'E.,  
30 lks. dist., marked ¼ S 36 B T  
This cor. is located 42 ft. below top of spur.  
November 28, 1910  
November 29, 1910: At 8h 48m a.m., l.m.t., I set off 38°05' on latitude arc; 21°23'S. on decl. arc; and determine meridian at ¼ sec. cor. bet. secs. 25 and 36; thence I run  
S.89°54'W. on a true line bet. secs. 25 and 36.  
Ascend.
- 49.00 Top of spur bears N. and S. 122 ft. above ¼ sec. cor.  
Descend.
- 80.30 The cor. of secs. 25, 26, 35 and 36.  
Land, rolling, mountainous.  
Soil, gravelly loam and rocky, 3rd and 4th rate.  
Timber, dense cedar and pinon pine; undergrowth, scatter-

Subdivision of T. 31 S., R. 18 W.

Chains	
	ing sagebrush and bunch grass.
	November 29: At 11h 48m a.m., l.m.t., I set off 21° 25'S. on decl. arc. and observe the sun on the meridian, the resulting lat. is 38°05'. N.0°01'W. bet. secs. 25 and 26. Over rolling mountainous land, through dense timber. Descend gently.
4.50	Wash, 10 lks. wide, 1 ft. deep; course SW, 36 ft. below sec. cor. Ascend.
9.00	Top of small ridge, bears NE. and SW., 30 ft. above wash. Descend.
12.00	Wash, 5 lks. wide, 1 ft. deep, course SW. 14 ft. below top of ridge. Ascend.
16.00	Top of small ridge, bears E. and W., 28 ft. above wash. Descend.
28.50	Wash, 5 lks. wide, 3 ft. deep, course W., 66 ft. below top of ridge. Ascend.
36.00	Top of ascent bears E. and W. Descend.
40.00	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 26 on W half and S 25 on E half; from which A pinon pine 6 ins. dia., bears N.71°16'E., 16 lks. dist., marked $\frac{1}{4}$ S 25 B T A cedar, 8 ins. dia., bears N.68°45'W., 18 lks. dist., marked $\frac{1}{4}$ S 26 B T, 16 ft. below top of ridge.
44.00	Bottom of depression; course SW. Ascend.
80.00	Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in

Chains

the ground for cor. of secs. 23, 24, 25 and 26, marked on brass cap

T 31 S S 23 in NW

R 18 W S 24 in NE

S 25 in SE. and

S 26 in SW. quadrant; from which

A pinon pine, 6 ins. dia., bears N. 31° 05' W., 41

lks. dist., marked T 31 S R 18 W S 23 B T

A pinon pine 8 ins. dia., bears N. 13° 51' E., 44

lks. dist., marked T 31 S R 18 W S 24 B T

A pinon pine, 10 ins. dia., bears S. 41° 52' E., 55

lks. dist., marked T 31 S R 18 W S 25 B T

A pinon pine, 10 ins. dia., bears S. 12° 35' W., 21

lks. dist., marked T 31 S R 18 W S 26 B T

This cor. is located on top of spur which bears NE. and SW. 238 ft. above point of ascent.

Land, rolling, mountainous.

Soil, gravelly loam and rocky, 3rd and 4th rate.

Timber, dense cedar and pinon pine.

Undergrowth, scattering sagebrush.

November 29, 1910.

November 30, 1910: At 8h. 49m a.m., l.m.t., I set off. 38° 06' on the lat. arc; 21° 33' S. on the decl. arc; and determine the meridian at cor. of secs. 23, 24, 25 and 26,

Thence I run

N. 69° 54' E., on a random line bet. secs. 24 and 25.

40.00 Set temp.  $\frac{1}{2}$  sec. cor.

80.18 Intersect E. bdy. of Tp. 5 lks. S. of cor. of secs. 19, 24, 25 and 30, heretofore described.

Thence I run

S. 89° 52' W. on a true line bet. secs. 24 and 25.

Over rough mountainous land, through scattering cedar and pinon pine.

Descend.

Subdivision of T. 31 S., R. 18 W.

Chains	
11.68	Wash, 15 lks. wide, 3 ft. deep, course NW. 316 ft. below sec. cor. Ascend.
13.18	Top of ridge, bears NW. and SE., 16 ft. above wash. Descend.
18.68	Wash 20 lks. wide, 5 ft. deep, course NW. 58 ft. below top of ridge. Ascend.
22.68	Leave scattering, enter heavy timber, bears NW. and SE., top of ridge, bears NW. and SE., 70 ft. above wash. Descend.
25.18	Leave timber, cross rock slide, composed of reddish porphyry 2.50 chs. wide, bears N. and S.
27.68	Enter heavy timber, bears N. and S.
39.18	Wash 15 lks. wide, 3 ft. deep; course N. 228 ft. below top of ridge. Ascend.
40.09	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 24 on N half and S 25 on S half; from which A pinon pine, 6 ins. dia., bears N. 58°30' W., 17 lks. dist., marked $\frac{1}{4}$ S 24 B T A pinon pine, 6 ins. dia., bears S. 37°01' E., 33 lks. dist., marked $\frac{1}{4}$ S 25 B T Top of small ascent bears N. and S. Descend.
48.09	Wash, 20 lks. wide, 2 ft. deep; course N. 15° W., 86 ft. below $\frac{1}{4}$ sec. cor. Ascend.
49.60	Top of ridge, bears N. and S. Descend.
68.10	Wash 10 lks. wide, 18 ins. deep, course N., 76 ft. below top of ridge. Ascend.
80.18	The cor. of secs. 23, 24, 25 and 26. Land, rough mountainous and rolling.

Subdivision of T. 31 S., R. 18 W.

Chains

Soil, gravelly loam and rocky 3rd and 4th rate.  
Timber, dense cedar and pinon pine, 40 chs.  
Undergrowth, scattering scrub sagebrush.

N.0°01'W. bet. secs. 23 and 24.

Over rough mountainous land, through scattering cedar and pinon pine, undergrowth scrub mahogany 4 to 5 ft. in height.

Descend.

6.00 Bottom of depression; course W.

Ascend.

10.00 Top of small spur, bears E. and W., 12 ft. above point of ascent.

Descend.

18.00 Rough ledge, 30 ft. in height, bears E. and W.

22.00 Wash, 15 lks. wide, 4 ft. deep; course W., 276 ft. below top of spur.

Ascend.

22.50 Wagon road to Lund, Utah, bears E. and W.; leave heavy enter scattering timber, undergrowth sagebrush bears E. and W.

28.00 Leave scattering, enter heavier timber, bears NE. and SW.

39.93 Set an iron post, 3 ft. long, 1 in. in dia., 16 ins. in the ground, to solid rock, mound of stone around post; for witness cor. marked on brass cap

T 31 S  $\frac{1}{4}$  S 23 W C in W half, and

R 18 W S 24 in E half, from which

A pinon pine, 8 ins. dia., bears S. 76° 18' W.,  
49 lks. dist., marked W C  $\frac{1}{4}$  S 23 B T

A cedar, 12 ins. dia., bears N. 53° 00' E.,

39 lks. dist., marked W C  $\frac{1}{4}$  S 24 B T

40.00 Point for  $\frac{1}{4}$  sec. cor. falls on blue limestone ledge, marked by a cross in the rock, at exact cor. point.

November 30, 1910.

Subdivision of T. 31 S., R. 18 W.

Chains

December 1, 1910: At 8h 49m a.m., l.m.t., I set off 38° 06' on the lat. arc; 21°42'S. on the decl. arc; and determine the meridian with the solar at  $\frac{1}{4}$  sec. cor., between secs. 23 and 24; thence I continue N.0°01'W. bet. secs. 23 and 24.

Ascend..

50.50 Top of mountain, bears N.10°E. and S.10°W.; 162 ft. above  $\frac{1}{4}$  sec. cor.

Descend through heavy timber, bears NE. and SW.

54.00 Leave heavy, enter scattering timber, bears NE. and SW.

62.00 Limestone, rockslide, bears E. and W; 2 chs. wide.

71.00 Enter grass 10 ins. in height, bears NE. and SW., timber becomes very scattering.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 13, 14, 23 and 24, marked on brass cap

T 31 S S 14 in NW

R 18 W S 13 in NE

S 24 in SE. and

S 23 in SW. quadrant; from which

A cedar, 20 ins. dia., bears N.6°12'E., 3 lks.

dist., marked T 31 S R 18 W S 13 B T

A pinon pine 8 ins. dia., bears N.26°39'W., 275

lks. dist., marked T 31 S R 18 W S 14 B T

A cedar, 6 ins. dia., bears S.65°38'W., 194

lks. dist., marked T 31 S R 18 W S 23 B T

A cedar, 18 ins. dia., bears S.10°26'E., 97 lks.

dist., marked T 31 S R 18 W S 24 B T

Land, rough mountainous.

Soil, gravelly loam and rocky, 3rd and 4th, rate.

Timber, scattering cedar and pinon pine; undergrowth

scrub mahogany 4 to 5 ft. in height, 22 chs.

Scattering sagebrush 46 chs., grass 12 chs.

N.89°52'E. on a random line bet. secs. 13 and 24.

Subdivision of T. 31 S., R. 18 W.

Chains

- 40.00 Set temp. & sec. cor.
- 80.12 Intersect E. bdy. of Tp. 4 lks. N. of cor. of secs. 13, 18, 19 and 24, heretofore described.
- Thence I run
- S.89°54'W. on a true line bet. secs. 13 and 24.
- Over rolling and rough mountainous land.
- Ascend.
- 14.12 Top of ridge, bears N. and S. 132 ft. above sec. cor.
- Descend.
- 32.62 Wash, 10 lks. wide, 18 ins. deep, course SW. 220 ft. below top of ridge.
- Ascend.
- 34.12 Leave scattering timber, enter open space, bears NE. and SW.
- 40.06 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked  $\frac{1}{4}$  S 13 on N half and S24 on S half of brass cap, from which
  - A pinon pine, 6 ins. dia., bears N.55°20'W.,
  - 13 lks. dist., marked  $\frac{1}{4}$  S 13 B T
  - A pinon pine 18 ins. dia., bears S.43°19'W.,
  - .50 lks. dist., marked  $\frac{1}{4}$  S 24 B T
- Cor is located 34 ft. above wash; enter heavy timber with scrub mahogany and sagebrush bears NE. and SW.
- Ascend.
- 66.00 Top of mountain, bears N.20°E. and S.20°W., 384 ft. above  $\frac{1}{4}$  sec. cor.
- Descend.
- 68.00 Blue limestone ledge bears N. and S., 40 ft. in height.
- 80.12 The cor. of secs. 13, 14, 23 and 24.
- Land, rolling and rough mountainous.
- Soil, gravelly loam and rocky 3rd and 4th rate.
- Timber, dense cedar and pinon pine 40 chs. undergrowth scrub mahogany 3 to 5 ft. in height 32 chs.; scattering sagebrush 48 chs.

December 1, 1910.

Subdivision of T. 31. S., R. 18 W.

Chains	
	<p>December 5, 1910: At 8h 50m a.m., l.m.t., I set off  <math>38^{\circ}07'</math> on the lat. arc; <math>22^{\circ}17'S</math>. on the decl. arc;  and determine the meridian at cor. of secs. 13, 14,  23 and 24.  N. <math>0^{\circ}01'W</math>. bet. secs. 13 and 14.  Over rolling mountainous land, through very scattering  cedar, undergrowth, grass 10 ins. in height.  Descend.</p>
16.00	<p>Wash 10 lks. wide, 1 ft. deep; course SW., 44 ft. below  sec. cor.  Ascend gently.</p>
36.00	<p>Top of small ridge, bears NE. and SW., 46 ft. above wash.</p>
39.50	<p>Wagon road, bears N. <math>20^{\circ}E</math>. and S. <math>20^{\circ}W</math>.</p>
40.00	<p>Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in  the ground to solid rock, mound of stone around post,  for <math>\frac{1}{4}</math> sec. cor., marked on brass cap <math>\frac{1}{4}</math> S 14 on W.  half, and S 13 on E half, from which  A cedar, 6 ins. dia., bears S. <math>18^{\circ}53'E</math>,  1.00 ch. dist., marked <math>\frac{1}{4}</math> S 13 B T  A cedar, 8 ins. dia., bears N. <math>40^{\circ}44'W</math>,  3.52 chs. dist., marked <math>\frac{1}{4}</math> S 14 B T</p>
40.25	<p>Wash, 20 lks. wide, 3 ft. deep; course W.  Ascend gently.</p>
48.00	<p>Top of small ridge, bears E. and W., 22 ft. above <math>\frac{1}{4}</math> sec.  cor.  Descend gently.</p>
50.25	<p>Wash, 25 lks. wide, 5 ft. deep; course SW.</p>
77.00	<p>Top of ridge, bears NE. and SW., 112 ft. above wash.</p>
80.00	<p>Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in  the ground for cor. of secs. 11, 12, 13 and 14,  marked on brass cap  T 31 S S 11 in NW  R 18 W S 12 in NE  S 13 in SE. and  S 14 in SW. quadrant; from which</p>

Subdivision of T. 31-S., R. 18 W.

Chains

- A cedar, 8 ins. dia., bears N.55°59'W., 0.75 chs. dist., marked T 31 S R 18 W S 11 B T
- A pinon pine, 8 ins. dia., bears N.66°55'E., 2.31 chs. dist., marked T 31 S R 18 W S 12 B T
- A cedar, 12 ins. dia., bears S.22°21'E., 2.32 chs. dist., marked T 31 S R 18 W S 13 B T
- A cedar, 6 ins. dia., bears S.46°43'W., 2.10 chs. dist., marked T 31 S R 18 W S 14 B T

Land, rolling mountainous.  
 Soil, gravelly loam and rocky, 3rd rate and 4th rate.  
 Timber, few scattering cedar.  
 Undergrowth, scattering sagebrush and grass 10 ins. in height.

- 40.00 N.89°54'E. on a random line bet. secs. 12 and 13. Set temp.  $\frac{1}{4}$  sec. cor.
- 80.02 Intersect E. bdy. of Tp. 2 lks. S. of cor. of secs. 7, 12, 13 and 18, heretofore described.  
 Thence I run  
 S.89°53'W. on a true line bet. secs. 12 and 13.  
 Over rolling mountainous land.  
 Ascend.
- 2.00 Top of small ridge, bears NW. and SE.  
 Descend.
- 6.00 Bottom of small ravine; course SE.  
 Ascend.
- 10.00 Leave heavy, enter scattering timber, bears NE. and SW.
- 14.25 Top of ridge, bears NW. and SE., 108 ft. above ravine.  
 Descend.
- 32.00 Bottom of depression, course NW. 154 ft. below top of ridge.  
 Ascend.
- 34.50 Top of spur, bears NW. and SE., 12 ft. above point of ascent. Descend.
- 40.01 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in

Subdivision of T. 31 S., R. 18 W.

Chains

the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 12 on N half and S 13 on S half; raise a mound of stone 2 ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

Pits impracticable.

Ascend gently.

44.00 Top of ridge, bears NW. and SE.

Descend.

56.00 Bottom of depression, course NW., 168 ft. below top of ridge.

Ascend.

57.50 Top of ascent, bears NW. and SE., 42 ft. above point of ascent.

Descend.

64.00 Bottom of descent, bears N. and S. wagon road bears N. and S.

Ascend.

66.50 Top of ridge, bears NW. and SE., 22 ft. above wagon road, leave scattering, enter heavy timber, bears NW. and SE.

Descend.

80.02 The cor. of secs. 11, 12, 13 and 14; 190 ft. below top of ridge.

Land, rolling, mountainous.

Soil, gravelly loam and rocky, 3rd and 4th rate.

Timber, heavy cedar and pinon pine, 15 chs. very

scattering timber 65 chs.

Undergrowth, scattering sagebrush, buckbrush and grass.

Sky overcast, observation impossible.

N. 0° 01' W. bet. secs. 11 and 12.

Over rough mountainous land; through scattering timber.

Descend.

0.50 Wash, 25 lks. wide, 3 ft. deep; course SW., 10 ft. below sec. cor.

Ascend gently.

Subdivision of T. 31 S., R. 18 W.

Chains

- 6.00 Wash 15 lks. wide, 3 ft. deep; course SW.  
Ascend.
- 12.00 Top of small spur, bears E. and W., 48 ft. above wash.  
Descend.
- 16.00 Wash, 15 lks. wide, 3 ft. deep; course SW., 14 ft. below  
top of ridge.  
Ascend.
- 40.00 Set an iron post 3 ft. long, 1 in. in dia., 12 ins. in  
the ground, to solid rock, mound of stone around post  
for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 11 on W half  
and S. 12 on E. half; from which  
A pinon pine, 6 ins. dia., bears S. 70° 39' W., 60  
lks. dist., marked  $\frac{1}{4}$  S 11 B T.  
A pinon pine, 6 ins. dia., bears S. 72° 05' E., 60  
lks. dist., marked  $\frac{1}{4}$  S 12 B T.  
December 5, 1910.  
December 10, 1910: At 9h 00m a.m., l.m.t., at  $\frac{1}{4}$  sec.  
cor. bet. secs. 11 and 12, sky overcast, observation  
impossible.  
N. 0° 01' W. bet. secs. 11 and 12.  
Ascend steep and rocky slope.
- 55.50 Top of rough spur, composed of volcanic rock, bears NW.  
and SE., 426 ft. above  $\frac{1}{4}$  sec. cor.  
Descend through scattering pinon pine with undergrowth  
of scrub mahogany, 6 to 8 ft. in height.
- 68.00 Wash, 5 lks. wide, 1 ft. deep, course SE., 80 ft. below  
top of spur.  
Ascend through heavy mahogany 8 to 12 ft. in height,  
bears NW. and SE.
- 76.00 Top of ridge, bears NE. and SW. 144 ft. above wash.  
Descend.
- 78.00 Leave timber, enter scattering sagebrush and squawbrush,  
bears NE. and SW.
- 80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in  
the ground for cor. of secs. 1, 2, 11 and 12, marked  
on brass cap

Subdivision of T. 31 S., R. 18 W.

Chains

.T 31 S S.2 in N W  
 R 18 W S 1 in N E  
 S 12 in S E. and  
 S 11 in S W. quadrant; and raise a mound  
 of stone 2 ft. base, 1½ ft. high W. of cor.

Pits impracticable.

Land, rolling and rough mountainous.

Soil, gravelly loam and rocky, 3rd and 4th rate.

Timber, scattering cedar and pinon pine, 70 chs. heavy  
 mahogany 8 to 12 ft. in height, 8 chs.

Undergrowth, scattering sagebrush, scrub mahogany and  
 grass.

N. 89° 53' E. on a random line bet. secs. 1 and 12.

40.00 Set temp. ¼ sec. cor.

80.28 Intersect E. bdy. of Tp. at the corner of secs. 1, 6, 7  
 and 12, heretofore described;

Thence I run

S. 89° 53' W. on a true line bet. secs. 1 and 12.

Over rolling mountainous land, through scattering cedar  
 and pinon pine, with undergrowth of sagebrush.

Ascend gently.

4.72 Wagon road, bears N. 60° E. and S. 60° W.

21.53 Wagon road, bears N. 15° E. and S. 15° W.

33.53 Old wagon road, bears NW. and SE.

38.00 Leave scattering enter heavy timber, bears NW. and SE.

40.14 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in  
 the ground for ¼ sec. cor., marked on brass cap ¼ S 1  
 on N half and S 12 on S half, from which

A pinon pine, 6 ins. dia., bears N. 59° 50' W.,

50 lks. dist., marked ¼ S 1 E T

A pinon pine, 6 ins. dia., bears S. 48° 53' E.,

27 lks. dist., marked ¼ S 12 B T

234 ft. above sec. cor.

Ascend.

Subdivision of T. 31 S., R. 18 W.

Chains	
45.28	<p>Top of ridge, bears NW. and SE., 44 ft. above <math>\frac{1}{4}</math> sec. cor. shaft of Arrowhead Mine, bears S.8°21'W., 11 chs. dist. This mine is not in operation, but considerable development work seems to have been done; from prospects in the vicinity; it was learned that this mine while in operation produced a gold-silver ore of encouraging values, and that work was to be resumed in the near future.</p>
	<p>Descend.</p>
46.00	<p>Leave heavy enter scattering timber, bears NW. and SE.</p>
50.78	<p>Wash, 10 lks. wide, 2 ft. deep, course SE.</p>
	<p>Ascend.</p>
74.28	<p>Rough ledge bears N. and S., 25 ft. in height.</p>
77.80	<p>Top of spur, bears NE. and SE. 670 ft. above wash.</p>
	<p>Descend.</p>
80.28	<p>The cor. of secs. 1, 2, 11 and 12; 34 ft. below top of</p>
	<p>spur.</p>
	<p>Land, rough, mountainous and rolling.</p>
	<p>Soil, gravelly and rocky, 3rd and 4th rate.</p>
	<p>Timber, heavy cedar and pinon pine, 8 chs. scattering</p>
	<p>timber 72 chs.</p>
	<p>Undergrowth, scattering sagebrush.</p>
	<p>December 10, 1910.</p>
	<p>December 16, 1910: At 8h 55m a.m., l.m.t., I set off 38°</p>
	<p>08' on the lat. arc; 23°16'S. on the decl. arc; and</p>
	<p>determine the meridian at cor. of secs. 1, 2, 11 and</p>
	<p>12, thence I run</p>
	<p>N.0°01'W. bet. secs. 1 and 2.</p>
	<p>Over rolling mountainous land, through sagebrush and</p>
	<p>grass.</p>
	<p>No timber.</p>
	<p>Descend on steep slope.</p>
16.50	<p>Wash, 20 lks. wide, 4 ft. deep, course N.75°E., 444 ft.</p>
	<p>below sec. cor.</p>
	<p>Ascend.</p>

## Subdivision of T. 31 S., R. 18 W.

Chains	
32.00	Top of small spur, bears E. and W., 80 ft. above wash. Descend.
38.15	Wash, 5 lks. wide, 2 $\frac{1}{2}$ ft. deep, course NE., 72 ft. below top of spur. Ascend.
40.00	Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground, for $\frac{1}{2}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 2 on W half and S 1 on E half, and raise a mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high W of cor. Pits impracticable. 14 ft. above wash. Ascend gently.
45.00	Top of small spur, bears E. and W., enter scattering, timber, bears E. and W., 20 ft. above $\frac{1}{2}$ sec. cor. Descend.
50.50	Leave scattering timber, bears E. and W.
52.00	Wash 10 lks. wide, 1 ft. deep; course E., 38 ft. below top of spur. Ascend.
55.00	Top of small spur, bears E. and W. Spring of fresh water and watering troughs bears N.47°30'W., 40 chs. dist. Descend.
58.00	Wash 15 lks. wide, 3 ft. deep, course E., 24 ft. below top of spur. Ascend.
65.85	Wagon road, bears N.75°W. and S.75°E.
69.50	Top of small spur, bears E. and W., 32 ft. above wash. Descend.
71.70	Wash 25 lks. wide, 3 ft. deep, course SE.
75.00	Bottom of depression; course E. Ascend.
78.00	Top of small spur, bears NW. and SE. 32 ft. above point of ascent. Descend gently.
80.00	Bottom of depression; course SE. Ascend.

Subdivision of T. 31 S., R. 18 W.

Chains

94.00 Enter scattering pinon pine with undergrowth of scrub mahogany 4 to 6 ft. in height.

98.00 Top of ridge, bears E. and W.; 270 ft. above point of ascent.  
Descend.

108.65 Wagon road, bears E. and W.

109.70 Wash, 15 lks. wide, 4 ft. deep, course E. contains small stream of fresh spring water; 244 ft. below top of ridge.  
Ascend.

110.50 Intersect 6th Standard Parallel S. 14.00 chs. W. of Standard cor. of secs. 35 and 36, heretofore described. Set an iron post, 3 ft. long, .2 ins. in dia., 16 ins. in the ground, to solid rock, mound of stone around post, for closing cor. of secs. 1 and 2, marked on brass cap.  
C C T 30 S R 18 W S. 35 S 36 in N half, and S 1 S 2 T 31 S in S half; raise a mound of stone, 2 ft. base, 1 1/2 ft. high S. of cor.  
Pits impracticable.  
Land, rolling mountainous.  
Soil, gravelly loam and rocky 3rd and 4th rate.  
Timber, scattering cedar and pinon pine, 20 chs.  
Undergrowth, sagebrush and squawbrush.

December 16, 1910

*Eric H. Anderson*  
Instrumentman G.L.O.

Survey commenced Nov. 27, 1910 and executed with a W. and L. E. Gurley explorers transit No. - with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc; which is also the least count of the verniers of the latitude and declination arcs. The instrument was examined, tested on the true meridian

Subdivision of T. 31 S., R. 18 W.

Chains.

at Salt Lake City, found correct and was approved by the surveyor general for Utah, Aug. 25, 1910. I examine the adjustments of the transit, found them correct; then to test the solar apparatus by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At the cor. of secs. 2, 3, 34 and 35 on S. bdy. of Tp. 31 S., R. 18 W., established by Mr. R. E. L. Collier. Latitude  $38^{\circ}04'17''N.$  longitude  $113^{\circ}47'42''W.$  I set off  $38^{\circ}04'N.$  on the lat. arc;  $21^{\circ}04'S.$  on the decl. arc; and at 4h 48m p.m., l.m.t., determine with the solar a meridian and mark a point, thereof on a peg firmly set in the ground 5 chs. N. of the cor.

November 27, 1910.

November 28: At 2h 59m a.m., l.m.t., by my watch, which is correct for l.m.t., I observe Polaris at Western elongation, in accordance with Manual of Instructions, and mark a line thus determined on a peg driven in the ground, 5 chs. N. of my station.

November 28, 1910.

November 29: At 7h 18m a.m., l.m.t., I lay off the azimuth of Polaris,  $1^{\circ}29'$  to the East. The meridian thus determined intersects nail set in peg, set 5 chs. N. Nov. 27, which is on meridian determined by the solar.

At 7h 48m a.m., l.m.t., I set off  $38^{\circ}04'N.$  on the lat. arc;  $21^{\circ}20'30''S.$  on decl. arc; and determine a meridian with the solar.

This mark intersects the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations, de-

Subdivision of T. 31 S., R. 18 W.

Chains

finds positions for the meridian, the same as that defined by Polaris observations; therefore I conclude that the adjustments of the instrument are satisfactory. The magnetic bearing of the true meridian at 8h 30m a.m., is N.16°30'W.; the angle thus determined gives the mag. decl. 16°30'E.

From the cor. of secs. 2, 3, 34 and 35, on S. bdy. of Tp. already described, I run N.0°01'W. bet. secs. 34 and 35. Over rolling land, through undergrowth of sagebrush and scattering grass.

6.35 Enter scattering timber, brs. E. and SW.

19.00 Wash, 5 lks. wide, 1 ft. deep, drains SW.

21.35 Wash, 6 lks. wide, 3 ft. deep, drains S.70°W.

21.50 Timber becomes dense, brs. NE. and SW.

30.75 Wash, 6 lks. wide, 1 ft. deep, drains SW.

39.85 Wash, 6 lks. wide, 1 ft. deep, drains SW.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap

1/4 S 34 on W half, and

S 35 on E half, from which

A pine, 14 ins. dia., brs. S.48°45'W.,

78 lks. dist., marked 1/4 S 34 B T

A pine, 10 ins. dia., brs. S.60°35'E.,

74 lks. dist., marked 1/4 S 35 B T

55.00 Leave timber, brs. NE. and SW.

61.00 Enter dense timber, brs. NE. and SW.

69.90 Wash, 12 lks. wide, 1 ft. deep, drains SW.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 26, 27, 34 and 35, marked on brass cap

T 31 S S 27 in N W

R 18 W S. 26 in N E

S 35 in SE. and

S 34 in SW. quadrants, from which

Subdivision of T. 31 S., R. 18 W.

Chains

A pine, 8 ins. dia., brs. N. 37° 20' W., 49  
 lks. dist., marked T 31 S R 18 W S 27 B T

A cedar, 8 ins. dia., brs. N. 35° 00' E., 37  
 lks. dist., marked T 31 S R 18 W S 26 B T

A pine 8 ins. dia., brs. S. 47° 40' E., 32  
 lks. dist., marked T 31 S R 18 W S 35 B T

A pine, 10 ins. dia., brs. S. 21° 10' W., 21  
 lks. dist., marked T 31 S R 18 W S 34 B T

Land, rolling, drains SW.  
 Soil, sandy loam with traces of gravel 4 to 6 ins. deep  
 on subsoil of cemented clay.  
 Timber, cedar and pinon pine.  
 Undergrowth, sagebrush and grass.

November 29: At this cor. I set off 21° 25' S. on decl.  
 arc; and at 11h 48m l.m.t., observe the sun on the  
 meridian, the resulting lat. is 38° 05'.

N. 89° 59' E. on a random line bet. secs. 26 and 35.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.12 Intersect N. and S. line 7 lks. N. of cor. of secs.  
 25, 26, 35 and 36. Thence I run  
 N. 89° 58' W. on a true line bet. secs. 26 and 35.

Desc. over mountainous land, through dense timber.

3.65 Small ravine, 50 lks. wide, 10 ft. deep, drains SW.

14.00 Ft. of mountainous land and wash, 10 lks. wide, 2 ft.  
 deep, 75 ft. below sec. cor., drains SW.

Thence over rolling land.

28.45 Wash, 10 lks. wide, 2 ft. deep, drains SW.

30.70 Wash, 10 lks. wide, 4 ft. deep, drains SW.

40.06 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the  
 ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  
 $\frac{1}{4}$  S 26 on N half, and  
 S 35 on S half, from which  
 A pine, 10 ins. dia., brs. N. 54° 30' W.,  
 60 lks. dist., marked  $\frac{1}{4}$  S 26 B T

Subdivision of T. 31 S., R. 18 W.

Chains

.. A pine, 10 ins. dia., brs. S. 4° 00' W.,  
 16 lks. dist., marked 1/4 S. 35 B T

66.70 Wash, 15 lks. wide, 4. ft. deep, drains SW.

80.12 The cor. of secs. 26, 27, 34 and 35.  
 Land, mountainous and rolling.  
 Soil, gravelly and rocky for 1st 14 chs. then becomes  
 sandy loam with some gravel, 4. to 6 ins. deep on sub-  
 soil of cemented clay, 2nd and 3rd rates.  
 Timber, dense pinon pine and cedar.  
 Undergrowth, scattering sagebrush.  
 Mountainous land, .14.00 chs.  
 November 29, 1910.

November 30; At 7h 49m a.m., l.mt., I set off 38° 05' on  
 lat. arc; 21° 30' S. on the decl. arc; and determine a  
 meridian with the solar, at the cor. of secs. 26, 27,  
 34 and 35. Thence I run

N. 0° 01' W. bet. secs. 26 and 27.  
 Over rolling land, through dense timber and scattering  
 undergrowth of sagebrush and grass.

16.00 Timber becomes scattering, brs. NE. and SW.

36.80 Wash, 4 lks. wide, 4 ft. deep, drains SW.

40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the  
 ground for 1/4 sec. cor., marked on brass cap 1/4 S 27 on  
 W half and S 26 on E half, from which  
 A cedar, 10 ins. dia., brs. S. 21° W., 104 lks.  
 dist., marked 1/4 S 27 B T  
 A cedar, 18 ins. dia., brs. S. 25° 30' E., 117  
 lks. dist., marked 1/4 S 26 B T

44.05 Wash, 5 lks. wide, 1 ft. deep, drains W.

45.00 Wagon road, brs. NE. and SW.

49.00 Ft. of hill, brs. NE. and SW.  
 Ascend.

55.00 Top of spur, projects east 5 chs. 75 ft. above ft.  
 Desc. gradually.

Subdivision of T. 31 S., R. 18 W.

Chains

67.00

Bottom of depression, 30 ft. below spur, drains W. Ascend.

73.50

Enter dense timber, brs. E. and W.

80.00

Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 22, 23, 26 and 27, marked on brass cap

T 31 S S. 22 in NW

R 18 W S 23 in NE

S 26 in SE. and

S 27 in SW quadrants; from which

A pine, 8 ins. dia., brs. N. 52° W. 41 lks.

dist., marked T 31 S R 18 W S 22 B T

A pine, 8 ins. dia., brs. N. 24° E., 70 lks.

dist., marked T 31 S R 18 W S 23 B T

A pine 9 ins. dia., brs. S. 71° 50' E., 44 lks.

dist., marked T 31 S R 18 W S 26 B T

A pine 8 ins. dia., brs. S. 58° 15' W., 123 lks.

dist., marked T 31 S R 18 W S 27 B T

Land, rolling and hilly, drains SW.

Soil, sandy loam and gravel, 4 to 6 ins. deep, on sub-soil of cemented clay.

Timber, cedars and pinon pine.

Scattering undergrowth of sagebrush and grass.

Hilly land 31.00 chs.

November 30: At this cor. I set off 21° 35' S. on decl. arc; and at 11h 49m l.m.t., observe the sun on the meridian, the resulting lat. is 38° 06'.

40.00

S. 89° 58' E. on a random line bet. secs. 23 and 26.

Set temp. 1/4 sec. cor.

80.06

Intersect N. and S. line 10 lks. N. of cor. of secs. 23, 24, 25 and 26.

Thence I run

N. 89° 54' W. on a true line bet. secs. 23 and 26.

Over mountainous land, through dense timber.

Ascend ridge.

Subdivision of T. 31 S., R. 18 W.

Chains	
3.00	Top of ridge, 10 ft. above sec. cor., brs. N.30°E. and S.30°W. Desc.
26.65	Wagon road, brs. NE. and SW.
27.50	Ft. of ridge, 450 ft. below top, brs. NE. and SW. Thence gradual desc. over rolling land.
40.03	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for ¼ sec. cor., marked on brass cap ¼ S 23 on N half and S 26 on S half, from which A pine 6 ins. dia., brs. S.16°W., 7 lks. dist., marked ¼ S 26 B T A pine, 6 ins. dia., brs. N.34°10'E., 46 lks. dist., marked ¼ S 23 B T
43.10	Wash, 20 lks. wide, 3 ft. deep, 50 ft. below ft. of ridge, drains SW. Asc. over rolling hill.
54.06	Top of spur, 100 ft. above wash, project about 8 chs. S. 10°W. Descend.
64.25	Bottom of depression, 75 ft. below top of spur, drains S. Ascend.
73.50	Top of ascent, 40 ft. above ft. brs. NE. and SW. Descend.
80.06	The cor. of secs. 22, 23, 26 and 27: Land, rolling, rolling hills and mountainous. Soil, sandy loam and rocky, 6 to 8 ins. deep, on sub-soil of cemented clay. Timber, cedars and pinon pine. Scattering undergrowth of sagebrush and grass. Mountainous land, 27.50 chs. rolling land, 15.60 chs. and rolling hills 36.90 chs. November 30, 1910.

December 1: At 7h 49m a.m., l.m.t., I set off 38°06' on

Subdivision of T. 31 S., R. 18 W.

Chains	
	<p>the lat. arc; 21°40'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 22, 23, 26 and 27.</p> <p>Thence I run</p> <p>N.0°01'W. bet. secs. 22 and 23.</p> <p>Over rolling hills, through dense timber and scattering undergrowth of sagobrush and bunch grass.</p> <p>Descend.</p>
10.00	Timber becomes scattering, brs. NE. and SW.
18.50	Wash, 10 lks. wide, 6 ft. deep, 50 ft. below sec. cor. Drains SW.
	Thence over rolling land.
20.00	Timber becomes dense, brs. E. and W.
40.00	Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 22 on W. half and S 23 on E half, from which
	<p>A pine, 6 ins. dia., brs. S.38°W., 41 lks. dist., marked <math>\frac{1}{4}</math> S 22 B T</p> <p>A pine 10 ins. dia., brs. N.83°E., 41 lks. dist., marked <math>\frac{1}{4}</math> S 23 B T</p>
44.50	Wash, 5 lks. wide, 6 ft. deep, drains W.
46.00	Wash, 20 lks. wide, 10 ft. deep, drains SW.
61.25	Wash, 20 lks. wide, 5 ft. deep, drains SW.
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 14, 15, 22 and 23, marked on brass cap
	<p>T 31 S S 15 in NW</p> <p>R 18 W S 14 in NE</p> <p>S 23 in SE. and</p> <p>S 22 in SW. quadrants, from which</p> <p>A pine, 8 ins. dia., brs. N.64°15'W., 58<math>\frac{1}{2}</math> lks. dist., marked T 31 S R 18 W S 15 B T</p> <p>A pine, 8 ins. dia., brs. N.47°45'E., 24 lks. dist., marked T 31 S R 18 W S 14 B T</p> <p>A pine, 8 ins. dia., brs. S.47°35'E., 58 lks. dist., marked T 31 S R 18 W S 23 B T</p>

Subdivision of T. 31 S., R. 18 W.

Chains

A pine 8 ins. dia., brs. S. 78° 20' W., 29  
 lks. dist., marked T 31 S R 18 W S 22 B T  
 Land, rolling and rolling hills.  
 Soil, gravelly and clay loam, 4 to 6 ins. deep, on sub-  
 soil of cemented clay, 2nd rate.  
 Timber, cedars and pinon pine.  
 Undergrowth, of scattering sagebrush and bunch grass.  
 December 1: At this cor. I set off 21° 45' S. on the  
 decl. arc; and at 11h 49m l.m.t., observe the sun on  
 the meridian, the resulting lat. is 38° 07'.

- 40.00 S. 89° 54' E. on a random line bet. secs. 14 and 23.  
 Set temp.  $\frac{1}{2}$  sec. cor.  
 80.00 Intersect N. and S. line 3 lks. N. of cor. of secs. 15,  
 14, 23 and 24.  
 Thence I run  
 N. 89° 53' W. on a true line bet. secs. 14 and 23.  
 Over rolling land, through undergrowth of sagebrush and  
 grass, timber, scattering.  
 Desc. gradually.  
 13.85 Wagon road, brs. NE. and SW.  
 24.60 Wash, 6 lks. wide, 1 ft. deep, 70 ft. below sec. cor.,  
 drains SW.  
 Thence over rolling land.  
 34.00 Enter dense timber, brs. NE. and SW.  
 36.60 Wash, 10 lks. wide, 3 ft. deep, drains SW.  
 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the  
 ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 14 on  
 N and S 23 on S half, from which  
 A pine, 10 ins. dia., brs. N. 83° 15' E.,  
 72 lks. dist., marked  $\frac{1}{2}$  S 14 B T  
 A pine, 10 ins. dia., brs. S. 65° E., 25  
 lks. dist., marked  $\frac{1}{4}$  S 23 B T  
 70.00 Wash, 20 lks. wide, 5 ft. deep, drains SW.  
 80.00 The cor. of secs. 14, 15, 22 and 23.

Subdivision of T. 31 S., R. 18 W.

Chains

- Land, rolling, drains SW.
- Soil, gravelly loam; 2nd rate.
- Timber, cedars and pinon pine.
- Undergrowth, scattering sagebrush.

December 1, 1910.

December 5: At 7h 50m a.m., l.m.t., I set off 38°07' on the lat. arc; 22°15'S. on the decl. arc; and determine a meridian with the solar at the cor; of secs. 14, 15, 22 and 23.

Thence I run

N.0°01'W. bet. secs. 14 and 15.

Over rolling land, through timber and scattering undergrowth of sagebrush and bunch grass.

20.00

Wash, 15 lks. wide, 1 ft. deep, drains SW.

29.95

Old wagon road, brs. NE. and SW.

40.00

Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{2}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 15 on W half, and S 14 on E half, from which

A pine, 10 ins. dia., brs. N.34°30'W.,

43 lks. dist., marked  $\frac{1}{4}$  S 15 B T

A pine, 12 ins. dia., brs. S.18°E.,

40 lks. dist., marked  $\frac{1}{4}$  S 14 B T

43.90

Wash, 6 lks. wide, 1 ft. deep, drains SW.

60.50

Wash, 12 lks. wide, 3 ft. deep, drains SW.

66.50

Wash, 8 lks. wide, 2 ft. deep, drains SW.

Thence ascend over spur, brs. NE. and SW.

80.00

Set an iron post, 3 ft. long, 2 ins. dia., 20 ins. in the ground to bed rock and erect a mound of stone around post, for cor. of secs. 10, 11, 14 and 15, marked on brass cap

T 31 S S 10 in NW

R 18 W S 11 in NE

S 14 in SE. and

S 15 in SW. quadrants, from which

Subdivision of T. 31 S., R. 18 W.

Chains

A cedar, 8 ins.dia.,brs. N.51°W., 19 lks.  
dist.,marked T 31 S R 18 W S 10 B T

A pine,6 ins.dia.,brs. N.37°50'E.,39 lks.  
dist.,marked T 31 S R 18 W S 11 B T

A pine,6 ins.dia.,brs. S.23°10'E.,55 lks.  
dist.,marked T 31 S R 18 W S 14 B T

A pine,6 ins.dia.,brs. S.44°15'W.,70 lks.  
dist.,marked T 31 S R 18 W S 15 B T

Land, rolling and last 15 chs. rolling hills.

Soil, gravelly loam, 6 to 8 ins. deep, on a subsoil of  
cemented clay, 2nd rate.

Timber, cedars and pinon pine.

Undergrowth of scattering sagebrush and grass.

December 5: At this cor. I set off 22°19'S on the decl.  
arc; and at 11h 50m l.m.t., observe the sun on the  
meridian, the resulting lat. is 38°08'.

S.89°53'E. on a random line bet. secs. 11 and 14.

40.00 Set temp. 1/4 sec. cor.

80.06 Intersect N and S line, 3 lks. S, of cor. of secs. 11,  
12, 13 and 14.

Thence I run

N.89°54'W. on a true line bet. secs. 11 and 14.

Over rolling mountainous land, through scattering timber  
and undergrowth of sagebrush.

Descend.

3.30 Wash, 15 lks. wide, 2 ft. deep, 10 ft. below sec. cor.,  
drains S.10°W.

Ascend.

4.00 Top of asc. 10 ft. above wash, brs. N. and S.

Descend.

16.00 Enter dense timber, brs. NE. and SW.

28.60 Wash, 15 lks. wide, 1 ft. deep, 50 ft. below asc. drains  
S.

Ascend.

36.00 Top of ascent, 60 ft. above wash, brs. NW. and SE.

Chains

- Thence over rolling land.
- 40.03 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 11 on N half and S 14 on S half, from which
- A pine, 10 ins. dia., brs. N. 45° 30' W.,
- 34 lks. dist., marked  $\frac{1}{4}$  S 11 B T
- A pine, 8 ins. dia., brs. S. 5° 30' E.,
- 15 lks. dist., marked  $\frac{1}{4}$  S 14 B T
- 54.00 Top of ascent, 15 ft. above  $\frac{1}{4}$  sec. cor., brs. NE. and SW.
- 66.25 Wash, 6 lks. wide, 1 ft. deep, 80 ft. below top drains SW.
- 75.75 Top of asc. 30 ft. above wash, brs. NE. and SW.  
Descend.
- 80.06 The cor. of secs. 10, 11, 14 and 15.  
Land, rolling mountainous.  
Soil, gravelly loam, 6 to 8 ins. deep, on a subsoil of cemented clay, 2nd and 3rd rates.  
Timber, cedars and pinon pine, 64.00 chs. dist.  
Undergrowth, scattering sagebrush and bunch grass.
- December 5, 1910.

December 10: Sky overcast, and solar observations are impossible.

From the cor. of secs. 10, 11, 14 and 15.

I run

N. 0° 01' W. bet. secs. 10 and 11.

Over mountainous land, through dense timber and scattering undergrowth, sagebrush.

Ascend.

- 8.50 Top of asc. 75 ft. above sec. cor., brs. NE. and SW.  
Descend.

- 9.60 Bottom of depression, 10 ft. below top, asc. drains SW.  
Ascend mountain.

- 31.00 Top of spur, 675 ft. above wash, brs. E. and W.  
Descend.

Subdivision of T. 31 S., R. 18 W.

Chains

- 33.50 Bottom of depression 55 ft. below top, drains SW.  
Ascend.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 10 on W half and S 11 on E half, from which  
A pine 6 ins. in dia., brs. S.  $88^{\circ}05'W.$ , 50  
lks. dist., marked  $\frac{1}{4}$  S 10 B T  
A pine, 8 ins. dia., brs. S.  $59^{\circ}15'E.$ , 10  
lks. dist., marked  $\frac{1}{4}$  S 11 B T  
Cor. stands on S slope of spur, 185 ft. above ft.
- 48.00 Leave timber, brs. E. and W.
- 58.50 Top of spur, 380 ft. above  $\frac{1}{4}$  sec. cor.; brs. E. and W.  
Descend.
- 71.75 Wash, at ft. of spur, 15 lks. wide, 2 ft. deep, 380 ft. below top of spur, drains W.  
Asc. gradually.
- 80.00 Set an iron post, 3 ft. long, 2 ins. dia., 14 ins. in the ground, to bed rock, and raise a mound of stone and earth around post, for cor. of secs. 2, 3, 10 and 11, marked on brass cap  
T 31 S S 3 in NW  
R 18 W S 2 in NE  
S 11 in SE. and  
S 10 in SW. quadrants; raise a mound of stone,  $2\frac{1}{2}$  ft. base, 2 ft. high W. of cor.  
Pits impracticable.  
Land, mountainous.  
Soil, rocky, 3rd and 4th rates.  
Timber, cedars and pinon pine, 48.00 chs.  
Undergrowth, scattering sagebrush and grass.  
Sky overcast and solar observations are impossible.

- 40.00 S.  $89^{\circ}54'E.$  on a random line bet. secs. 2 and 11.  
Set temp.  $\frac{1}{4}$  sec. cor.
- 80.16 Intersect N. and S. line, 11 lks. S. of cor. of secs. 1,

Subdivision of T. 31 S., R. 18 W.

Chains

2, 11 and 12.

Thence I run

N.89°59'W. on a true line, bet. secs. 2 and 11.

Over mountainous land, undergrowth of sagebrush and grass.

Descend along N. side of spur.

10.00 Ft. of desc. 20 ft. below sec. cor., drains N.

Ascend.

14.00 Top of small spur, 70 ft. above ft. desc. brs. N.10 chs.

Desc.

20.00 Ft. of desc. 130 ft. below top of spur, thence on a level line along N. slope of mountain.

28.40 Asc., mountains bears SW. and E.

40.08 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 2 on N half, and S 11 on S half, raise a mound of stone 2 $\frac{1}{2}$  ft. base, 2 ft. high, N. of cor.

Cor. stands on E slope of mountain, 400 ft. above ft. of asc.

49.25 Summit of mountain, 325 ft. above  $\frac{1}{4}$  sec. cor., brs. N. and S.

Descend.

80.16 The cor. of secs. 2, 3, 10 and 11.

Land, mountainous, very rough.

Soil, rocky, 3rd and 4th rate.

Undergrowth of sagebrush and scattering grass.

No timber.

Cor. stands near the ft. of mountain, 1000 ft. below top.

December 10, 1910.

December 16: At 8h 55m a.m., l.m.t., I set off 38°08' on the lat. arc; 23°16'S. on decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 10 and 11.

## Subdivision of T. 31 S., R. 18 W.

## Chains

Thence I run

N.0°01'W. bet. secs. 2 and 3.

Over mountainous land, undergrowth of sagebrush and  
bunch grass.

Ascend.

1.00 Top of asc. 10 ft. above sec. cor., brs. E. and W.

Desc. gradually.

10.00 Wash, 10 lks. wide, 2 ft. deep, 15 ft. below top asc.,  
drains W.

Asc. spur, brs. E. and W.

19.15 Top of spur, 275 ft. above wash, projects, S.70°W., 10  
chs.

Descend.

22.00 Bottom of desc. 20 ft. below top of spur, drains W.

Ascend.

25.50 Top of asc. 20 ft. above ft., brs. E. and W.

Desc.

28.30 Bottom of depression 15 ft. below top, drains SW.

Ascend.

32.75 Top of spur, 65 ft. above ft. of desc. projects S.80°W.  
about 15 chs.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the  
ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 3 on  
W half and S 2 on E half; raise a mound of stone  $2\frac{1}{2}$  ft.  
base, 2 ft. high W. of cor.

Cor. stands in bottom of depression, 20 ft. below top  
of spur, drains NE.

Ascend.

54.50 Top of ridge, 450 ft. above  $\frac{1}{4}$  sec. cor., brs. E. and W.

Descend.

72.00 Bottom of desc. 130 ft. below top of ridge, drains SW.

Ascend.

81.50 Top of spur, 70 ft. above ft. of desc., projects about  
8 chs. S.70°W.

December 16: At this point, I set off 23°17'S. on the

Subdivision of T. 31 S., R. 18 W.

Chains

decl. arc; and at 11h 55m l.m.t., I observe the sun on the meridian, the resulting lat. is 38°09'.

Desc. spur.

84.00 Bottom of desc. 150 ft. below top of spur, drains W.

Asc. mountain.

104.50 Top of mountain, 250 ft. above ft. of desc., brs. N.30°W. and S.30°E.

Desc. through scattering timber.

110.82 Intersect Sixth Standard Parallel South, 13.89 chs. W. of cor. of secs. 34 and 35, heretofore described.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 2 and 3, marked on brass cap

C C T 30 S R 18 W S 34 S 35 in N half

S 2 in SE. and

S 3 in SW quadrants, from which

A pine, 28 ins. dia., brs. S.20°15'E., 1.77

chs. dist., marked C C T 31 S R 18 W S 2 B T

A pine 16 ins. dia., brs. S.16°45'W., 2.56

chs. dist., marked C C T 31 S R 18 W S 3 B T

Land, mountainous, very rough.

Soil, rocky, 3rd and 4th rates.

Undergrowth sagebrush and scattering bunch grass.

Timber, 80 chs. SW. of cor. about 8 chs. is a grove of long leaf pine, 6 chs. square.

December 16, 1910.

*Ralph Linty*

Instrumentman G.L.O.

December 2, 1910: At 8h 48m a.m., l.m.t., I set off 38° 04' on the lat. arc; 21°52'S. on the decl. arc; and determine the meridian at cor. of secs. 3, 4, 33 and 34 on S bdy. of Tp. heretofore described.

Thence I run

N.0°02'W. bet. secs. 33 and 34.

Subdivision of T. 31 S., R. 18 W.

Chains

- Over gently rolling land, through sagebrush.
- 3.50 Wash, 10 lks. wide, 1 ft. deep; course SW.  
Ascend gently.
- 21.25 Wagon road, to Modena, Ut. bears NE. and SW.
- 40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 33 on W half and S 34 on E half, dig pits 18 x 18 x 12 ins. N. and S. of post, 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high W. of cor.
- 51.75 Wash, 6 lks. wide, 1 ft. deep; course SW.
- 52.00 Leave heavy, enter scattering sagebrush, brs. E. and W.
- 60.00 Leave scattering, enter heavy sagebrush, 2 ft. in height, bears NE. and SW.
- 66.00 Old wagon road, bears N.60°E. and S.60°W.
- 72.00 Enter scattering cedar bears E. and W.
- 78.80 Old wagon road, bears N.75°E. and S.75°W.
- 80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 27, 28, 33 and 34, marked on brass cap.

T 31 S S 28, in N W

R. 18 W S 27 in N E

S. 34 in S E. and

S. 33 in S W. quadrant; from which

A cedar, 12 ins. dia., bears N.85°33'E., 1.34

chs. dist., marked T 31 S R 18 W S 27 B T

A cedar, 14 ins. dia., bears S.17°22'W., 1.88

chs. dist., marked T 31 S R 18 W S 33 B T

A cedar, 6 ins. dia., bears S.37°46'E., 65 lks.

dist., marked T 31 S R 18 W S 34 B T

No other bearing trees within limits; raise a mound of stone 2 ft. base,  $1\frac{1}{2}$  ft. high W. of cor.  
Land, gently rolling.

Soil, clay and sandy loam, 2nd rate.

Timber, scattering cedar 4 chs., undergrowth sagebrush.

N.89°59'E. on a random line bet. secs. 27 and 34.

Subdivision of T. 31 S., R. 18 W.

Chains

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.06 Intersect N. and S. line, 5 lks. S. of cor. of secs.  
26, 27, 34 and 35.

Thence I run

S.  $89^{\circ}57'W.$  on a true line bet. secs. 27 and 34.

Over gently rolling land; through dense cedar and pinon  
pine.

Descend gently.

22.10 Wash, 20 lks. wide, 3 ft. deep; course SW.

Ascend gently.

28.00 Leave heavy, enter scattering timber, bears NE. and SW.  
Undergrowth, scattering sagebrush.

32.00 Top of ascent, bears NE. and SW.

Descend.

36.00 Leave scattering timber, enter heavy sagebrush, 2 ft.  
height, bears NE. and SW.

40.03 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S  
27 on N half and S 34 on S half; dig pits 18 x 18 x  
12 ins. E. and W. of post, 3 ft. dist. and raise a  
mound of earth, 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high N. of cor.

43.25 Wagon road to Modena, Ut. bears N.  $60^{\circ}E.$  and S.  $60^{\circ}W.$

48.00 Top of ascent bears NE. and SW.

Descend.

58.50 Bottom of depression; course SW.

Ascend gently.

61.30 Old wagon road, bears NE. and SW.

Descend.

68.30 Wash, 10 lks. wide, 1 ft. deep, course SW.

Ascend gently.

77.85 Old wagon road, bears NE. and SW.

80.06 The cor. of secs. 27, 28, 33 and 34.

Land, rolling.

Soil, sandy loam and gravelly, 2nd and 3rd rate.

Timber, dense cedar and pinon pine, 28 chs.

Chains

Scattering timber 8 chs. undergrowth, sagebrush.

- N.0°02'W. bet. secs. 27 and 28.  
 Over rolling land, through sagebrush.  
 Ascend gently.
- 12.00 Top of ascent bears NE. and SW.  
 Descend.
- 13.00 Enter scattering timber, bears E. and W,  
 20.80 Wash, 10 lks. wide, 2 ft. deep; course SW.  
 Ascend.
- 24.00 Top of ridge, bears NE. and SW.  
 Descend.gently.
- 30.00 Bottom of depression, bears NE. and SW.  
 Ascend gently.
- 40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in  
 the ground for  $\frac{1}{4}$  sec. cor. marked on brass cap  $\frac{1}{4}$  S  
 28 on W half and S 27 on E half, from which  
     A cedar, 6 ins.dia., bears S.62°09'E.,  
     73 lks. dist., marked  $\frac{1}{4}$  S 27 B T  
     A cedar, 8 ins.dia., bears S.61°34'W.,  
     83 lks.dist., marked  $\frac{1}{4}$  S 28 B T  
 Leave scattering, enter heavier timber, bears NE. and SW.
- 46.00 Top of ascent, bears NE. and SW.  
 Descend gently.
- 63.40 Wash, 10 lks. wide, 1 ft. deep; course SW.  
 Ascend.
- 72.00 Top of ascent, bears NE. and SW.  
 Descend.
- 80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in  
 the ground, for cor. of secs.21, 22, 27 and 28, marked  
 on brass cap  
     T 31 S S 21 in N W  
     R 18 W S 22 in N E  
     S 27 in S E. and  
     S 28 in S W.quadrant, from which  
     A cedar, 8 ins.dia., bears N.44°48'E., 2.77

Subdivision of T. 31 S., R. 18 W.

Chains

chs. dist., marked T 31 S R 18 W S 22 B T  
 A cedar, 14 ins. dia., bears S. 22° 26' E., 2.08  
 chs. dist., marked T 31 S R 18 W S 27 B T  
 A cedar, 10 ins. dia., bears S. 38° 42' W., 3.26  
 chs. dist., marked T 31 S R 18 W S 28 B T  
 No other trees within limits; raise a mound of stone 2  
 ft. base, 1½ ft. high W. of cor.  
 Land, gently rolling.  
 Soil, sandy loam and gravelly, 2nd and 3rd rate.  
 Timber, scattering cedar, 38 chs.  
 Undergrowth, sagebrush.  
 Sky overcast, observation impossible.

N. 89° 57' E. on a random line bet. secs. 22 and 27.

40.00 Set temp. ¼ sec. cor.

80.08 Intersect N. and S. line 12 lks. N. of cor. of secs. 22, 23, 26 and 27.

Thence I run

N. 89° 58' W. on a true line bet. secs. 22 and 27.

Over gently rolling land, through scattering timber. Descend gently.

12.00 Bottom of depression, course SW.

Ascend.

18.00 Top of ascent, bears NE. and SW.

Descend.

28.70 Wash, 10 lks. wide, 2 ft. deep, course SW.; leave scattering enter heavy timber, bears NE. and SW.

38.50 Top of small ridge, bears NE. and SW.

Descend.

40.04 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap ¼ S 22 on N half and S 27 on S. half, from which

A cedar, 16 ins. dia., bears N. 70° 40' E.,

42 lks. dist., marked ¼ S 22 B T

A cedar, 12 ins. dia., bears S. 46° 40' W.,

72 lks. dist., marked ¼ S 27 B T

Subdivision of T. 31 S., R. 18 W.

Chains

68.00 Leave heavy, enter scattering timber, bears NE. and SW.  
80.08 The cor. of secs. 21, 22, 27 and 28.

Land, gently rolling.  
Soil, sandy loam and gravelly, 2nd and 3rd rate.  
Timber, dense cedar and pinon pine, 40 chs., scattering  
timber 40 chs.; undergrowth sagebrush 12 to 18 ins.  
in height.

December 2, 1910.

December 3, 1910: At 8h 50m a.m., l.m.t., I set off  
38°06' on the lat. arc; 22°01'S. on the decl. arc; and  
determine a meridian with the solar at the cor. of  
secs. 21, 22, 27 and 28.

Thence I run

N.0°02'W. bet. secs. 21 and 22.

Over gently ascending and rolling land, through scatter-  
ing timber.

2.00 Wash, 25 lks. wide, 1 ft. deep, drains SW.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S  
21 on W half and S 22 on E half, from which

A cedar, 8 ins. dia., brs. S.67°26'W.,

2.30 chs. dist., marked  $\frac{1}{4}$  S 21 B T

A cedar, 8 ins. dia., brs. S.24°49'E.,

1.52 chs. dist., marked  $\frac{1}{4}$  S 22 B T

Descend gently through heavy timber, brs. NE. and SW.

49.40 Wash, 50 lks. wide, 6 ft. deep, drains SW.

Ascend.

52.00 Leave heavy, enter scattering timber, brs. NE. and SW.

56.00 Top of ascent, brs. NE. and SW.

Descend gently.

64.00 Wash, 30 lks. wide, 2 ft. deep, drains SW.

Ascend.

72.00 Leave scattering, enter heavy timber, brs. NE. and SW.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in

Subdivision of T. 31 S., R. 18 W.

Chains

the ground for cor. of secs. 15, 16, 21 and 22, marked on brass cap

T 31 S S 16 in NW

R 18 W S 15, in N E

S 22 in SE, and

S 21 in SW quadrants, from which

A cedar, 6 ins. dia., brs. N. 77° 33' E., 1.08

chs. dist., marked T 31 S R 18 W S 15 B T

A cedar, 6 ins. dia., brs. N. 77° 33' W., 62

lks. dist., marked T 31 S R 18 W S 16 B T

A pinon pine, 8 ins. dia., brs. S. 35° 55' W., 86

lks. dist., marked T 31 S R 18 W S 21 B T

A cedar, 8 ins. dia., brs. S. 35° 52' E., 48

lks. dist., marked T 31 S R 18 W S 22 B T

Land, rolling.

Soil, sandy loam and gravelly with clay subsoil, 18 ins. below surface, 2nd rate.

Timber, heavy cedars and pinon pine, 12 chs. scattering timber 40 chs.

Undergrowth, sagebrush,

Sky is overcast, observations impossible!

S. 89° 58' E. on a random line bet. secs. 15 and 22.

40.00 Set temp. 1/4 sec. cor.

18.14 Intersect N. and S. line, 7 lks. S. of cor. of secs. 14, 15, 22 and 23.

Thence I run

S. 89° 59' W. on a true line bet. secs. 15 and 22.

Over rolling land, through dense timber.

Ascend.

12.14 Wash, 15 lks. wide, 2 ft. deep, course SW.

20.14 Wash, 10 lks. wide, 1 ft. deep, course SW.

Ascend gently.

40.07 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap 1/4 S 15 on

Subdivision of T. 21 S., R. 12 E.

Casins

N half and S 22 on S half, from which  
 A cedar, 6 ins. dia., brs. N. 80° 25' E.,  
 35 lks. dist., marked  $\frac{1}{2}$  S 15 B T  
 A pinon pine, 6 ins. in dia., brs. S. 4° 10' E.,  
 57 lks. dist., marked  $\frac{1}{2}$  S 22 B T

Ascend gently.

60.00 Top of ridge, brs. NE, and SW.

Descend gently.

70.75 Wash, 20 lks. wide, 1 ft. deep, drains S. 36 ft. below ridge.

76.00 Top of ascent, brs. N. and S.

Descend.

78.14 Wash, 10 lks. wide, 2 ft. deep, drains S.

80.14 The cor. of secs. 15, 16, 21 and 22.

Land, rolling.

Soil, sandy and gravelly loam, 2nd and 3rd rate.

Timber, dense cedars and pinon pine.

Undergrowth, scattering scrub sagebrush.

December 3, 1910.

December 15, 1910: At 8h 55m a.m., l.m.t., I set off  
 38° 07' on the lat. arc; 23° 13' S. on the decl. arc; and  
 determine the meridian at cor. of secs. 15, 16, 21 and  
 22, thence I run

N. 0° 02' W. bet. secs. 15 and 16.

Over rolling land, through dense timber.

Ascend gently.

8.00 Top of ascent, bears E. and W. 26 ft. above sec. cor.

Descend gently.

28.40 Wash, 15 lks. wide, 2 ft. deep, course SW., 26 ft. below top of ascent.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 2 1/2 ins. in  
 the ground for  $\frac{1}{2}$  sec. cor., marked on brass cap  $\frac{1}{2}$  S  
 16 on E half and S 15 on E half, from which

Subdivision of T. 31 S., R. 18 W.

Chains

A pinon pine, 8 ins. dia., bears N. 67° 59' E.,  
1.46 chs. dist., marked  $\frac{1}{4}$  S 15 B T

A pinon pine, 10 ins. dia., bears S. 63° 47' W.,  
25 lks. dist.; marked  $\frac{1}{4}$  S 16 B T

Ascend gently.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 15 ins. in  
the ground, to solid rock, mound of stone around post;  
for cor. of secs. 9, 10, 15 and 16, marked on brass  
cap

T 31 S S 9 in NW

R 18 W S 10 in NE

S 15 in SE. and

S 16 in SW. quadrant, from which

A pinon pine, 6 ins. dia., bears N. 27° 55' W., 1.28  
chs. dist., marked T 31 S R 18 W S 9 B T

A pinon pine 8 ins. dia., bears N. 75° 00' E., 56  
lks. dist., marked T 31 S R 18 W S 10 B T

A cedar, 6 ins. dia., bears S. 24° 51' E., 83  
lks. dist., marked T 31 S R 18 W S 15 B T

A pinon pine 6 ins. dia., bears S. 65° 45' W., 67  
lks. dist., marked T 31 S R 18 W S 16 B T

Land, rolling.

Soil, gravelly loam, 3rd rate.

Timber, dense cedar and pinon pine, with undergrowth of  
sagebrush.

December 15: At 11h 55m a.m., l.m.t., I set off 23° 14' S.  
on the decl. arc; and observe the sun on the meridian,  
the resulting lat. is 38° 07'.

Thence I run

N. 89° 59' E. on a random line bet. secs. 10 and 15.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.14 Intersect N. and S. line, 18 lks. N. of cor. of secs.  
10, 11, 14, and 15.

Thence I run

Subdivision of T. 31 S., R. 18 W.

Chains

N.89°53'W. on a true line bet. secs. 10 and 15.

Over rolling land through dense cedar and pinon pine.

Descend.

29.78 Wagon road, bears N.20°W. and S.20°E.

33.29 Wash, 40 lks. wide, 10 ft. deep; course S. 186 ft. below sec. cor.

Ascend.

40.07 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap 1/4 S 10 on N half and S 15 on S half, from which

A pinon pine, 6 ins. dia., bears N.38°27'W., 38 lks. dist., marked 1/4 S 10 B T

A pinon pine, 6 ins. dia., bears S.57°22'E., 31 lks. dist., marked 1/4 S 15 B T

14 ft. above wash.

44.15 Top of small ridge, bears N. and S.

Descend gently.

48.89 Wash, 10 lks. wide, 2 ft. deep, course S. 26 ft. below top of ridge.

Ascend.

52.15 Top of ridge, bears N. and S., 26 ft. above wash.

Descend gently.

68.00 Bottom of descent; course SW., 70 ft. below top of ridge.

Ascend gently.

80.14 The cor. of secs. 9, 10, 15 and 16; 22 ft. above depression.

Land, rolling.

Soil, gravelly loam, 3rd rate.

Timber, heavy cedar and pinon pine.

Undergrowth, scattering sagebrush.

December 15, 1910.

December 17, 1910: At 8h 56m a.m., l.m.t., I set off 38° 07' on the lat. arc; 23°18'S. on the decl. arc; and

Subdivision of T. 31 S., R. 18 W.

Chains

determine the meridian at cor. of secs. 9, 10, 15 and 16; thence I run

N.0°02'W. bet. secs. 9 and 10.

Over rolling mountainous land, through heavy cedar and pinon pine.

Ascend gently.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap 1/4 S 9 on W half S 10 on E half, from which

A pinon pine 6 ins. dia., bears N.67°19'W., 14 lks. dist., marked 1/4 S 9 B T

A pinon pine 6 ins. dia., bears S.19°05'E., 35 lks. dist., marked 1/4 S 10 B T

Cor. is located on top of gently rolling ridge, 194 ft. above sec. cor.

Desc. gently.

42.50 Wash, 10 lks. wide, 2 1/2 ft. deep, course SW., 14 ft. below top of ridge.

Ascend.

61.00 Top of spur, bears E. and W., 210 ft. above wash. Descend.

63.00 Bottom of descent, bears NE. and SW.

Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 18 ins. in the ground to solid rock, mound of stone around post, for cor. of secs. 3, 4, 9 and 10, marked on brass cap

T 31 S S 4 in NW

R 18 W S 3 in NE

S 10 in SE. and

S 9 in SW. quadrant; from which

A pinon pine, 8 ins. dia., bears N.50°30'E., 20 lks. dist., marked T 31 S R 18 W S 3 B T

A pinon pine, 10 ins. dia., bears N.39°31'W., 15 lks. dist., marked T 31 S R 18 W S 4 B T

A pinon pine, 10 ins. dia., bears S.37°26'W., 38 lks. dist., marked T 31 S R 18 W S 9 B T

Chains

A pinon pine, 12 ins. dia., brs. S. 50° 08' E., 40  
 lks. dist., marked T 51 S R 18 W S 10 B T  
 Cor. is located on W. slope, 150 ft. above point of  
 ascent.

Land, rolling mountainous.

Soil, gravelly loam and rocky, 5rd and 4th rate.

Timber, heavy cedar and pinon pine; undergrowth scatter-  
 ing sagebrush.

December 17: At 11h 56m a.m., l.m.t., I set off 23° 20' S.  
 on the decl. arc; and observe the sun on the meridian  
 at cor. of secs. 3, 4, 9 and 10, the resulting lat. is  
 38° 08'.

Thence I run

S. 89° 53' E. on a random line bet. secs. 3 and 10.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.02 Intersect N. and S. line, 3 lks. N. of cor. of secs. 2,  
 3, 10 and 11.

Thence I run

N. 89° 52' W. on a true line bet. secs. 3 and 10.

Over rolling mountainous land.

Descend.

29.70 Wash, 5 lks. wide, 1 $\frac{1}{2}$  ft. deep; course SW. 324 ft. below  
 sec. cor.

Ascend.

32.00 Top of small ridge, bears NE. and SW.

Descend. gently.

40.01 Set an iron post, 3 ft. long, 1 in. in dia., 18 ins. in  
 the ground to solid rock, mound of stone around post,  
 for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{2}$  S 3 on N half  
 and S 10 on S half; raise a mound of stone 2 ft. base,  
 1 $\frac{1}{2}$  ft. high N. of cor.

Pits impracticable. Little Basket spring bears N. 22° 45'  
 E., 12 chs. dist.

Descend.

Subdivision of T. 31 S., R. 18 W.

Chains	
41.80	Wash, 10 lks. wide, 3 ft. deep; course SW. contains small stream of fresh water from Little Basket Spring. Ascend.
48.00	Top of ridge, bears NE. and SW. Descend.
60.50	Wash, 25 lks. wide, 5 ft. deep; course SW. contains small stream of fresh spring water. Ascend.
61.50	Top of small ascent, bears NE. and SW. Descend.
63.40	Wash, 25 lks. wide, 5 ft. deep; course S., 32 ft. below top of ascent. Ascend.
74.50	Top of ridge, bears NE. and SW. 228 ft. above wash. Descend.
80.02	The cor. of secs. 3, 4, 9 and 10, 108 ft. below top of ridge. Land, rolling mountainous. Soil, gravelly loam and rocky, 3rd and 4th rate. Timber, dense cedar and pinon pine, 40 chs. scattering timber 5 chs. Undergrowth, sagebrush 18 ins. in height.
December 17, 1910.	
December 19, 1910: At 8h 57m a.m., l.m.t., I set off 38°08' on the lat. arc; 23°22'S. on the decl. arc; and determine the meridian at cor. of secs. 3, 4, 9 and 10. Thence I run N.0°02'W. bet. secs. 3 and 4. Over rolling mountainous land, through scattering cedar and pinon pine.	
6.00	Bottom of descent, bears E. and W., 10 ft. below sec. cor. Ascend.
9.00	Top of ascent, bears E. and W. Descend.
13.75	Wash 5 lks. wide, 1 ft. deep; course SW. Ascend steep slope.

Subdivision of T. 31 S., R. 18 W.

Chains

- 21.50 Top of ridge, bears E. and W., 158 ft. above wash.
- 23.00 Ledge, bears E. and W., 20 ft. in height.
- 36.80 Wash, 30 lks. wide, 7 ft. deep, course W., contains small stream of fresh water; 256 ft. below top of ridge.  
Ascend gently.
- 40.00 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 4 on W half and S 3 on E half, from which  
A pinon pine, 6 ins. dia., brs. N.88°54'E.,  
1.39 chs. dist., marked  $\frac{1}{4}$  S 3 B T  
A pinon pine, 6 ins. dia., brs. N.52°19'W.,  
64 lks. dist., marked  $\frac{1}{4}$  S 4 B T, 38 ft. above wash.
- 42.10 Wash, 15 lks. wide, 3 ft. deep; course SW.
- 54.50 Wash, 25 lks. wide, 4 ft. deep, course SW.
- 60.00 Top of ridge, bears NE. and SW., 86 ft. above  $\frac{1}{4}$  sec. cor.  
Descend gently.
- 63.50 Bottom of descent, brs. NE. and SW., 32 ft. below top of ridge. Ascend.
- 65.00 Top of small ridge, bears NE. and SW.  
Descend.
- 66.25 Wash, 10 lks. wide, 2 ft. deep; course W.  
Ascend.
- 81.00 Top of spur, bears E. and W.  
Descend.
- 85.05 Wash 20 lks. wide, 4 ft. deep; course W.  
Ascend.
- 96.10 Top of ridge, bears E. and W., 152 ft. above wash. Big Basket Spring bears S.66°06'W., 18.80 chs. dist., and drains SW.  
Descend.
- 102.00 Wash, 30 lks. wide, 5 ft. deep; course SW., 64 ft. below top of ridge.  
Ascend.
- 110.64 Intersect 6th Standard Parallel South, 14.21 chs. W. of

Chains

standard cor. of secs. 33 and 34, heretofore described.

Set an iron post, 3 ft. long, 2 ins. in dia., 14 ins. in the ground to solid rock, mound of stone around post, for closing cor. of secs. 3 and 4, marked on brass cap

T 30 S R 18 W C C S 33 S 34 on N half, and

S 3 S 4 T 31 S on S half; raise a mound of

stone 2 ft. base, 1½ ft. high S. of cor.

Pits impracticable, 148 ft. above wash.

Land, rolling mountainous.

Soil, gravelly loam and rocky, 3rd and 4th rate.

Timber, scattering cedar and pinon pine.

Undergrowth, scattering sagebrush.

December 19, 1910.

*Eric H. Anderson*  
Instrumentman G.L.O.

December 2: At 7h 49m a.m., l.m.t., I set off 38°04' on the lat. arc; 21°50'S. on decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 32 and 33, on S bdy. of Tp., heretofore described. Thence I run

N.0°03'W. bet. secs. 32 and 33.

Over gently rolling land, through undergrowth of sagebrush and scattering grass.

8.15 Wagon road, brs. NE. and SW.

20.00 Wash, 4 lks. wide, 2 ft. deep, drains SW.

25.90 Wagon road, brs. NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap ¼ S 32 on W half and S 33 on E half,

Dig pits, 18 x 18 x 12 ins. N. and S. of post, 3 ft. dist. and raise a mound of earth, 3½ ft. base, 1½ ft. high W. of cor.

46.45 Wash, 8 lks. wide; 1 ft. deep, drains SW.

Subdivision of T. 31 S., R. 18 W.

Chains

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 28, 29, 32 and 33, marked on brass cap

T 31 S S 29 in NW  
R 18 W S 28 in NE  
S 33 in SE. and  
S 32 in SW. quadrants, dig pits 18 x 18 x 12 ins. in each sec.  $5\frac{1}{2}$  ft. dist.; and raise a mound of earth, 4 ft. base, 2 ft. high W. of cor.

Land, gently rolling, drains SW.

Soil, gravel and sandy loam, 6 to 8 ins. deep, on sub-soil of cemented clay, 2nd rate.

Undergrowth, of sagebrush and scattering grass.

No timber.

N.  $89^{\circ}59'$  E. on a random line bet. secs. 28 and 33.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

79.98 Intersect N. and S. line 3 lks. S. of cor. of secs. 27, 28, 33 and 34.

Thence I run

S.  $89^{\circ}58'$  W. on a true line bet. secs. 28 and 33.

Over gently rolling land, through undergrowth of sagebrush and bunch grass.

Scattering cedars and pinon pine.

16.00 Leave scattering timber, brs. NE. and SW.

25.10 Wash, 5 lks. wide, 2 ft. deep, drains SW.

39.99 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 28 on N half and S 33 on S half,

Dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist. and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

79.98 The cor. of secs. 28, 29, 32 and 33.

Land, gently rolling, slopes W.

Soil, gravelly loam, 2nd rate.

Timber, few scattering cedars and pinon pine first 16

Subdivision of T. 31 S., R. 18 W.

Chains

chs.

Undergrowth of sagebrush and bunch grass.

From the cor. of secs. 28, 29, 32 and 33,

Thence I run

N.0°03'W. bet. secs. 28 and 29.

Over gently rolling land, through undergrowth of sagebrush and scattering bunch grass.

- 7.25 Wash, 6 lks. wide, 2 ft. deep, drains NW.
- 10.90 Wash, 4 lks. wide, 1 ft. deep, drains SW.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 29 on W half and S 28 on E half; dig pits 18 x 18 x 12 ins. N and S of post 3 ft. dist.; and raise a mound of earth, 3 $\frac{1}{2}$  ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.
- 48.00 Enter scattering timber, brs. SE. and W.
- 65.00 Wash, 5 lks. wide, 2 ft. deep, drains SW.
- 80.00 Set an iron post 3 ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs., 20, 21, 28 and 29, marked on brass cap

T 31 S S 20 in NW

R 18 W S 21 in NE

S 28 in SE. and

S 29 in SW quadrants, from which

A cedar, 12 ins. dia., brs. N.16°30'W., 5

lks. dist., marked T 31 S R 18 W S 20 B T

A cedar, 12 ins. dia., brs. N.73°E., 168 lks.

dist., marked T 31 S R 18 W S 21 B T

A cedar, 20 ins. dia., brs. S.2°45'E., 5 chs.

dist., marked T 31 S R 18 W S 28 B T

A cedar, 8 ins. dia., brs. S.82°30'W., 3.40

chs. dist., marked T 31 S R 18 W S 29 B T

Land, rolling, drains SW.

Soil, sandy loam, 6 to 8 ins. deep, on subsoil of clay, 2nd rate.

Subdivision of T. 31 S., R. 18 W.

Chains

Undergrowth of sagebrush and scattering bunch grass.  
Timber; last 32 chs. scattering growth of cedars and  
pinon pine.

N.89°58'E. on a random line bet. secs. 21 and 28.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

79.98 Intersect N. and S. line, 13 lks. N. of cor. of secs.  
21, 22, 27 and 28.

Thence I run

N.89°56'W. on a true line bet. secs. 21 and 28.

Over gently rolling land, through undergrowth of sage-  
brush and undergrowth of bunch grass.

1.85 Wash, 6 lks. wide, 1 ft. deep, drains SW.

39.99 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the  
ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 21 on  
N half and S. 28 on S half, and raise a mound of stone  
2 ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

58.00 Enter scattering timber, brs. NE. and SW.

79.98 The cor. of secs. 20, 21, 28 and 29.

Land, gently rolling, drains SW.

Soil, sandy loam, 2nd rate.

Undergrowth of sagebrush and scattering bunch grass.

Scattering cedars and pinon last 32 chs.

December 2, 1910.

From the cor. of secs. 20, 21, 28 and 29.

Thence I run

N.0°03'W. bet. secs. 20 and 21.

Over rolling land, through scattering timber and under-  
growth of sagebrush and bunch grass.

1.45 Wash, 4 lks. wide, 1 ft. deep, drains W.

8.00 Wash, 4 lks. wide, 3 ft. deep, drains SW.

32.00 Wash, 4 lks. wide, 2 ft. deep, drains SW;

33.60 Wash, 6 lks. wide, 2 ft. deep, drains SW.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the

Subdivision of T. 31 S., R. 18 W.

Chains

ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 20 on W half and S 21 on E half, from which

A cedar 10 ins. dia., brs. W. 24 lks. dist.

marked  $\frac{1}{4}$  S. 20 B.T.

A cedar, 12 ins. dia., brs. N. 81° 30' E., 25

lks. dist., marked  $\frac{1}{4}$  S 21 B.T.

44.00 Wash, 4 lks. wide, 6 ft. deep, drains SW.

52.70 Wash, 10 lks. wide, 1 ft. deep, drains SW,

60.75 Wash, 12 lks. wide, 3 ft. deep, drains SW.

72.00 Leave timber, brs. E. and W.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 16, 17, 20 and 21, marked on brass cap.

T 31 S S 17 in. NW

R 18 W S 16 in. NE

S 21 in. SE. and

S 20 in SW. quadrants, dig pits 18 x 18

x 12 ins. in each sec.  $5\frac{1}{2}$  ft. dist. and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, gently rolling.

Soil, gravelly loam, 6 to 8 ins. deep, on subsoil of cemented clay, 2nd rate.

Scattering cedars and pinon pine, 72 chs.

Undergrowth, of sagebrush and scattering bunch grass.

S. 89° 56' E. on a random line bet. secs. 16 and 21.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

79.98 Intersect N and S line, 7 lks. S. of cor. of secs. 15, 16, 21 and 22.

Thence I run

N. 89° 59' W. on a true line bet. secs. 16 and 21.

Over rolling land, through timber and undergrowth of sagebrush and bunch grass.

21.85 Wash, 22 lks. wide, 1 ft. deep, drains SW.

27.20 Wash, 40 lks. wide, 1 ft. deep, drains SW.

37.80 Wash, 8 lks. wide, 1 ft. deep, drains SW.

Chains

- 39.99 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 16 on N half and S 21 on S half, from which
- A pine, 12 ins. dia., brs. N. 33° 30' E.,  
61 lks. dist., marked  $\frac{1}{4}$  S 16 B T
- A pine, 8 ins. dia., brs. S. 26° 30' E.,  
37 lks. dist., marked  $\frac{1}{4}$  S 21 B T
- 52.60 Wash, 6 lks. wide, 1 ft. deep, drains SW.
- 63.00 Timber becomes scattering, brs. N. and SW.
- 72.00 Leave timber, brs. N. and SW.
- 79.98 The cor. of secs. 16, 17, 20 and 21.
- Land, rolling.
- Soil, gravelly loam, 6 to 12 ins. deep, on subsoil of cemented clay, 2nd rate.
- Timber, cedars and pinon pine, 72 chs.
- Undergrowth, sagebrush and scattering bunch grass.

December 3, 1910.

From the cor. of secs. 16, 17, 20 and 21,

Thence I run

N. 0° 03' W. bet. secs. 16 and 17.

Over rolling land, through undergrowth of sagebrush and scattering bunch grass.

- 10.00 Enter scattering timber, bears E. and W.
- 13.70 Wash, 8 lks. wide, 2 ft. deep, drains S. 60° W.
- 20.00 Timber becomes dense, bears E. and W.
- 40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 17 in W half and S 16 in E half, from which
- A cedar, 18 ins. dia., bears S. 29° 30' W.,  
39 lks. dist., marked  $\frac{1}{4}$  S 17 B T
- A cedar, 12 ins. dia., bears N. 54° E.,  
62 lks. dist., marked  $\frac{1}{4}$  S 16 B T
- 69.10 Wash, 8 lks. wide, 1 ft. deep, drains SW.
- Timber becomes scattering, bears E. and W.

Subdivision of T. 31. S., R. 18 W.

Chains

77.15

Wash, 10 lks. wide, 2 ft. deep, drains SW.

80.00

Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 8, 9, 16 and 17, marked on brass cap

T 31 S S 8 in NW

R 18 W S 9 in NE

S 16 in SE. and

S 17 in SW quadrant, from which

A pine, 10 ins. dia., brs. N. 28° 35' W., 2.88

chs. dist., marked T 31 S R 18 W S 8 B T

A cedar, 8 ins. dia., bears N. 29° 25' E., 4.21

chs. dist., marked T 31 S R 18 W S 9 B T

A pine, 6 ins. dia., brs. S. 62° 30' E., 95 lks.

dist., marked T 31 S R 18 W S 16 B T

A pine, 6 ins. dia., brs. S. 77° 45' W., 1.35

chs. dist., marked T 31 S R 18 W S 17 B T

Land, rolling, slopes to the SW.

Soil, gravelly loam 6 to 8 ins. deep, on subsoil of cemented clay, 2nd rate.

Timber, dense cedar and pinon pine 49.10 chs., scattering timber 20.90 chs.

Undergrowth, sagebrush and scattering bunch grass.

December 17, 1910.

40.00

S. 89° 59' E. on a random line bet. secs. 9 and 16.

Set temp.  $\frac{1}{4}$  sec. cor.

December 19: At 8h 57m a.m., l.m.t., I set off 38° 07' on the lat. arc; 23° 20' S. on the decl. arc; and determine

a meridian with the solar, at the temp.  $\frac{1}{4}$  sec. cor.,

bet. secs. 9 and 16. I continue my random line

S. 89° 59' E. bet. secs. 9 and 16.

80.08

Intersect N. and S. line 3 lks. N. of cor. of secs. 9, 10, 15 and 16.

Thence I run

N. 89° 58' W. on a true line bet. secs. 9 and 16.

Over rolling land, through dense timber and scattering

## Subdivision of T. 31 S., R. 18 W.

Chains

- undergrowth of sagebrush and grass.
- 12.00 Timber becomes scattering, brs. N. and S.
- 20.00 Ft. of rolling hill, brs. N. and S.
- Re-enter dense timber, brs. N. and S.
- Ascend.
- 29.00 Top of asc. 50 ft. above ft., brs. N.
- Descend.
- 40.04 Set an iron post 3 ft. long, 1 in. dia., 20 ins. in the ground to solid rock, raise a mound of stone around post for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 9 on N half, and S 16 on S half, from which
- A pine, 6 ins. dia., brs. N.  $1^{\circ}00'W.$ , 45
- lks. dist., marked  $\frac{1}{4}$  S 9, B T
- A pine, 10 ins. dia., brs. S.  $73^{\circ}30'W.$ , 80
- lks. dist., marked  $\frac{1}{4}$  S 16 B T
- 50.85 Wash, 30 lks. wide, 5 ft. deep, 150 ft. below top of asc., drains S.  $80^{\circ}W.$
- Asc. gradually along N. side of ravine.
- 63.00 Top of asc. 40 ft. above wash.
- Descend.
- 65.00 Ft. of rolling hill, 50 ft. below top of asc.
- Thence over rolling land.
- 70.00 Timber, becomes scattering, brs. N. and S.
- 76.55 Wash, 15 lks. wide, 1 ft. deep, drains SW.
- 80.08 The cor. of secs. 8, 9, 16 and 17.
- Land, rolling and mountainous.
- Soil, sandy loam, 6 to 8 ins. deep, on a subsoil of cemented clay, and rocky, 2nd and 3rd rates.
- Timber, cedars and pinon pine.
- Undergrowth, scattering sagebrush and bunch grass.
- Rolling hills, 45.00 chs.
- 
- N.  $0^{\circ}03'W.$  bet. secs. 8 and 9.
- Over rolling land, through scattering timber and scattering undergrowth of sagebrush and bunch grass.

Subdivision of T. 31 S., R. 18 W.

Chains

- 4.50 Ft. of rolling hill, brs. NE. and SW.  
Enter dense timber, brs. NE. and SW.  
. Ascend.
- 25.00 Top of asc. 230 ft. above ft. brs. E. and W.  
Thence on nearly level line, along W. slope of hill.
- 28.00 Desc. gradually over NW. slope of hill.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 16 ins. in  
the ground, to solid rock and raise a mound of stone  
around post, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S  
8 on W half and S 9 on E half, from which  
A pine, 8 ins. dia., brs. S. 59° W., 20  
lks. dist., marked  $\frac{1}{4}$  S 8 B T  
A pine, 6 ins. dia., brs. S. 40° 50' E., 18  
lks. dist., marked  $\frac{1}{4}$  S 9 B T  
Cor. stands on W. slope of hill, 20 ft. below point of  
desc.
- 43.00 Desc. hill, brs. E. and W.
- 54.00 Timber becomes scattering, brs. NE. and SW.
- 56.25 Wash, 4 lks. wide, 1 ft. deep, 115 ft. below top of  
desc. drains SW.  
Thence over rolling country.
- 60.00 Wash, 8 lks. wide, 6 ft. deep, drains S. 70° W.
- 70.85 Wash, 15 lks. wide, 1 ft. deep, drains SW.
- 79.45 Old wagon road, brs. NE. and SW.
- 80.00 Set an iron post, 3 ft. long, 2 ins. dia., 14 ins. in  
the ground, to solid rock, and raise a mound of stone  
and earth around post, for cor. of secs. 4, 5, 8 and 9  
marked on brass cap  
T 31 S S 5 in NW  
R 18 W S 4 in NE  
S 9 in SE. and  
S 8 in SW. quadrants, from which  
A pine 6 ins. dia., brs. N. 60° 45' W., 87 lks.  
dist., marked T 31 S R 18 W S 5 B T  
A pine 6 ins. dia., brs. N. 73° E., 47 lks.  
dist., marked T 31 S R 18 W S 4 B T

## Subdivision of T. 31 S., R. 18 W.

## Chains

A cedar, 8 ins. dia., brs. S.  $24^{\circ}30'E.$ , 43. lks.  
dist., marked T 31 S R 18 W S 9 B T

A pine, 6 ins. dia., brs. S.  $75^{\circ}40'W.$ , 83 lks.

dist., marked T 31 S R 18 W S 8 B T

Land, rolling, and mountainous.

Soil, gravelly and rocky, 3rd and 4th rates.

Timber, cedars and pinon pine.

Undergrowth, scattering sagebrush and bunch grass.

Mountainous land, 51.75 chs.

December 19: At this cor. I set off  $23^{\circ}24'S.$  on the  
decl. arc; and 11h 57m l.m.t., observe the sun on the  
meridian, the resulting lat. is  $38^{\circ}08'$ .

S.  $89^{\circ}58'E.$  on a random line bet. secs. 4 and 9.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.26 Intersect N. and S. line, 7 lks. S. of cor. of secs. 3,  
4, 9 and 10.

Thence I run

S.  $89^{\circ}59'W.$  on a true line bet. secs. 4 and 9, over  
mountainous country, through timber and scattering  
undergrowth of sagebrush.

Descend mountain.

16.85 Wash, 6 lks. wide, 2 ft. deep, 290 ft. below sec. cor.,  
drains SW.

Asc. spur.

26.75 Top of spur, 50 ft. above wash, projects S. 4 chs.

Descend.

36.25 Ft. of hill, 130 ft. below top of spur, brs. N. and S.  
Thence over rolling land.

40.13 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the  
ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 4 in  
N half and S 9 in S half, from which

A pine 6 ins. dia., brs. N.  $28^{\circ}30'E.$ , 28  
lks. dist., marked  $\frac{1}{4}$  S 4 B T

A cedar, 6 ins. dia., brs. S.  $18^{\circ}30'W.$ , 56  
lks. dist., marked  $\frac{1}{4}$  S 9 B T

Subdivision of T. 31 S., R. 18 W.

Chains

- 53.25 Wash, 8 lks. wide, 2 ft. deep, drains SW.
  - 65.75 Timber becomes scattering, brs. N. and S.
  - 67.75 Wash, 20 lks. wide, 1 ft. deep, drains SW.
  - 78.75 Old wagon road, brs. NE. and SW.
  - 80.26 The cor. of secs. 4, 5, 8 and 9.
- Land, rolling and mountainous.
- Soil, gravelly and rocky, 3rd and 4th rates.
- Timber, cedars and pinon pine.
- Undergrowth, scattering sagebrush and bunch grass.
- Mountainous land, 36.25 chs.

December 19, 1910.

December 20: Snow storm and dense fog prevented work during forenoon.

At lh 57m p.m., l.m.t., I set off 38°08' on the lat. arc; 23°24'S. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 4, 5, 8 and 9.

Thence I run

N.0°03'W. bet. secs. 4 and 5.

Over rolling land, through dense timber and undergrowth of scattering sagebrush and bunch grass.

- 15.20 Wash, 8 lks. wide, 2 ft. deep, 30 ft. below sec. cor., drains SW.

Ascend gradually.

- 40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground for ¼ sec. cor., marked on brass cap ¼ S 5 on W half and S 4 on E half, from which

A pine, 6 ins. dia., brs. N.61°15'W., 3 lks. dist., marked ¼ S 5 B T

A pine, 8 ins. dia., brs. N.69°45'E., 37 lks. dist., marked ¼ S 4 B T

Cor. stands on rolling ridge, 75 ft. above wash, brs. NE. and SW.

Descend gradually.

Subdivision of T. 31 S., R. 18 W.

Chains

- 52.20 Wash, 8 lks. wide, 3 ft. deep, 30 ft. below  $\frac{1}{2}$  sec. cor., drains SW.
  - Ascend.
  - 70.00 Top of ascent, 15 ft. above wash, brs. N.60°E. and S.60°W.
  - Descend.
  - 74.70 Wagon road, brs. NE. and SW.
  - 75.80 Wash, 8 lks. wide, 2 ft. deep, drains S.60°W., 50 ft. below top of ascent.
  - Ascend.
  - 90.00 Top of ascent, 30 ft. above wash, brs. NE. and SW. Timber becomes scattering, brs. NE. and SW.
  - Descend slightly.
  - 100.40 Wash, 8 lks. wide, 2 ft. deep, 20 ft. below top of ascent, drains SW. Ascend.
  - 102.35 Top of ascent, 20 ft. above wash, brs. NW. and SE.
  - Descend.
  - 105.35 Wash, 6 lks. wide, 1 ft. deep, 10 ft. below top of ascent drains SW.
  - Ascend.
  - 110.93 Intersect Sixth Standard Parallel South 14.08 chs. W. of cor. of secs. 32 and 33, heretofore described.  
Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for closing cor. of secs. 4 and 5, marked on brass cap  
C C T 30 S R 18 W S 32 S 33 in N half,  
S 4 in SE. and  
S 5 in SW. quadrants, from which  
A pine, 6 ins. dia., brs. S.11°50'E., 24 lks. dist., marked C C T 31 S R 18 W S 4 B T  
A cedar, 6 ins. dia., brs. S.83°W., 20 lks. dist., marked C C T 31 S R 18 W S 5 B T
- Land, rolling and broken by rolling hills.  
Soil, gravelly loam and rocky, 3rd rate.  
Timber, cedars and pinon pine.  
Undergrowth of scattering sagebrush and bunch grass.

Subdivision of T. 31 S., R. 18 W.

Chains

December 20, 1910.

Dec. 2:  
From the cor. of secs. 5, 6, 31 and 32 on S bdy. of Tp.  
heretofore described. Thence I run  
N.0°03'W. bet. secs. 31 and 32.

Over gently rolling land, through undergrowth of sage-  
brush and scattering bunch grass.

26.30 Wash, 12 lks. wide, 2 ft. deep, drains W.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in  
the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 31  
on W half and S 32 on E half.

Dig pits 18 x 18 x 12 ins. N. and S. of post, 3 ft.  
dist., and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft.  
high W. of cor.

76.35 Wash, 5 lks. wide, 1 ft. deep, drains SW.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in  
the ground for cor. of secs. 29, 30, 31 and 32, marked  
on brass cap

T 31 S S 30 in NW

R 18 W S 29 in NE

S 32 in SE. and

S 31 in SW quadrants; dig pits 18 x 18  
x 12 ins. in each sec.  $5\frac{1}{2}$  ft. dist., and raise a mound  
of earth, 4 ft. base, 2 ft. high W. of cor.

Land, gently rolling.

Soil, clay loam, 4 to 6 ins. deep, on a subsoil of  
cemented clay, 2nd rate.

Undergrowth, sagebrush and scattering bunch grass.

No timber.

December 2: At this cor. I set off 21°54'S. on the  
decl. arc; and 11h 49m l.m.t., observe the sun on the  
meridian, the resulting lat. is 38°05'.

N.89°59'E. on a random line bet. secs. 29 and 32.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

Subdivision of T. 31 S., R. 18 W.

Chains

79.98

Intersect N. and S. line, 3 lks. N. of cor. of secs. 28, 29, 32 and 33.

Thence I run

West on a true line bet. secs. 29 and 32.

Over gently rolling land, through undergrowth of sagebrush and scattering bunch grass.

15.85

Wash, 10 lks. wide, 3 ft. deep, drains SW.

31.20

Road, brs. N. and S.

39.99

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 29 on N half and S 32 on S half; dig pits 18 x 18 x 12 ins. E and W of post, 3 ft. dist.; and raise a mound of earth,  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

49.00

Wash, 5 lks. wide, 1 ft. deep, drains SW.

79.98

The cor. of secs. 29, 30, 31 and 32.

Land, gently rolling, drains SW.

Soil, clay loam, 4 to 6 ins. deep, on subsoil of cemented clay, 2nd rate.

Undergrowth, sagebrush and scattering bunch grass.

No timber.

This 3rd day of December, Lawrence D. Simmons discontinues work, as rear chainman, I put Roy P. Barton, flagman in his place. No officer authorized to administer oaths, other than myself being available without great inconvenience, delay and expense, I administer the required preliminary and final oaths.

*Ralph Gentry*  
Instrumentman G.L.O.

December 3: At 7h 50m a.m., l.m.t., I set off  $38^{\circ}05'$  on the lat. arc;  $21^{\circ}58'S$  on the decl. arc; and determine a meridian with the solar at the cor. of secs. 29, 30, 31 and 32.

Thence I run

Subdivision of T. 31 S., R. 18 W.

Chains

- S.89°59'W. on a random line bet. secs. 30 and 31.
- 40.00 Set temp.  $\frac{1}{2}$  sec. cor.
- 77.93 Intersect W. bdy. of Tp. 3 lks. N. of cor. of secs. 29, 30, 31 and 36, heretofore described.
- Thence I run
- N.89°58'E. on a true line bet. secs. 30 and 31, over gently rolling land, through undergrowth of sagebrush and scattering bunch grass.
- Ascend.
- 5.93 Top of asc. 20 ft. above sec. cor., brs. NE. and SW. Thence over nearly level land.
- 37.93 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for  $\frac{1}{2}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 30 on N half, and S 31 on S half, dig pits 18 x 18 x 12 ins. E and W of post 3 ft. dist; and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.
- 53.43 Desc. into ravine, brs. NE. and SW.
- 56.00 Ft. of desc. 40 ft. below top, brs. NE. and SW. Thence on a level.
- 58.90 Wash, 10 lks. wide, 2 ft. deep, drains SW.
- 61.75 Asc. from ravine, brs. NE. and SW.
- 66.70 Top of ravine, 40 ft. brs. NE. and SW. Thence over level land.
- 77.93 The cor. of secs. 29, 30, 31 and 32. Land, gently rolling, drains SW. Soil, sandy loam, 6 to 8 ins. deep, on a subsoil of cemented clay, 2nd rate. Undergrowth of sagebrush and scattering bunch grass. No timber.
- 
- N.0°03'W. bet. secs. 29 and 30.
- Over rolling land, through undergrowth of sagebrush and scattering bunch grass.
- 16.00 Desc. into ravine, brs. E. and W.
- 24.00 Bottom of ravine, 30 ft. below top of asc., drains SW. Ascend.

-02-

Subdivision of T. 51 S., R. 18 W.

Chains

- 28.00 Top of ravine, 30 ft. above bottom, brs. NE. and SW.
- 40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground for  $\frac{1}{2}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 50 on W half and S 29 on E half; dig pits 18 x 18 x 12 ins. N and S of post, 3 ft. dist.; and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high W. of cor.
- 48.00 Desc. into wash, brs. NE. and SW.
- 52.35 Wash, 4 lks. wide, 2 ft. deep, 20 ft. below top of asc. drains W.
- Ascend.
- 56.00 Top of asc. 20 ft. above wash, brs. NE. and SW.  
Thence over nearly level land.
- 72.00 Desc. into wash, brs. NE. and SW.
- 75.45 Wash, 6 lks. wide, 3 ft. deep, 20 ft. below top, drains SW.
- Ascend.
- 79.00 Top of asc. 20 ft. above wash, brs. NE. and SW.
- 80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for cor. of secs. 19, 20, 29 and 30, marked on brass cap
- T 31 S-S 19 in NW
- R 18 W-S 20 in NE
- S 29 in SE. and
- S 30 in SW. quadrants; dig pits 18 x 18 x 12 ins. in each sec.  $5\frac{1}{2}$  ft. dist; and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.
- Land, rolling, drains SW.
- Soil, sandy loam, 6 to 8 ins. deep, on subsoil of cemented clay, 2nd rate.
- Undergrowth, sagebrush and scattering bunch grass.
- No timber.

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East on a random line bet. secs. 20 and 29.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.00 Intersect N. and S. line 6 lks. N. of cor. of secs. 20,

Subdivision of T. 30 S., R. 18 W.

Chains

- 21, 28 and 29.
- Thence I run  
 N.89°57'W. on a true line bet. secs. 20 and 29.  
 Over gently rolling land, through scattering timber and  
 scattering bunch grass.
- 11.70 Wash, 6 lks. wide, 1 ft. deep, drains SW.
- 29.00 Leave scattering timber, brs. NW. and SE.
- 36.10 Road, brs. NE. and S.
- 40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the  
 ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 20 on  
 N half, S-29 on S half, dig pits 18 x 18 x 12 ins. E  
 and W of post 3 ft. dist.; and raise a mound of earth,  
 $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.
- 64.00 Desc. into wash, brs. E. and SW.
- 70.90 Wash, 8 lks. wide, 4 ft. deep, 25 ft. below top, drains  
 SW.
- Ascend.
- 78.00 Top of asc. 20 ft. above wash, brs. NE. and SW.  
 Thence over nearly level land.
- 80.00 The cor. of secs. 19, 20, 29 and 30.  
 Land, rolling, drains SW.  
 Soil, gravel loam, 6 to 8 ins. deep, on a subsoil of  
 cemented clay, 2nd rate.  
 Timber, scattering cedars and pinon pine, first 29.00  
 chs.  
 Undergrowth, sagebrush and scattering bunch grass.
- 
- 40.00 S.89°58'W. on a random line bet. secs. 19 and 30.  
 Set temp.  $\frac{1}{4}$  sec. cor.
- 77.74 Intersect W. bdy. of Tp.10 lks. N. of cor. of secs.  
 19, 24, 25 and 30, heretofore described.  
 Thence I run  
 N.89°54'E. on a true line bet. secs. 19 and 30.  
 Over rolling land, through undergrowth of sagebrush and  
 scattering bunch grass.

Subdivision of T. 51 S., R. 18 W.

Chains

4.75 Desc. into wash, brs. NE. and SW.

9.00 Wash, 8 lks. wide, 1 ft. deep, 20 ft. below top, drains SW.

Ascend.

13.75 Top of asc. 20 ft. above wash, brs. NE. and SW. Thence over rolling land.

37.74 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{2}$  S 19 on N half and S 30 in S half, dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist., and raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

77.74 The cor. of secs. 19, 20, 29 and 30. Land, rolling, drains to the SW. Soil, gravelly loam, 6 to 8 ins. deep, on a subsoil of cemented clay, 2nd rate. Undergrowth of sagebrush and scattering bunch grass. No timber.

December 3: At this cor. I set off  $22^{\circ}03'S.$  on the decl. arc; and 11 h 50 m l.m.t., observe the sun on the meridian, the resulting lat. is  $38^{\circ}06'.$

December 17: At 8h 56m a.m., l.m.t., I set off  $38^{\circ}07'$  on the lat. arc;  $23^{\circ}18'S.$  on the decl. arc; and determine a meridian with the solar at the cor. of secs. 19, 20, 29 and 30.

Thence I run

N.  $0^{\circ}03'W.$  bet. secs. 19 and 20.

Over rolling land, through undergrowth of sagebrush and scattering bunch grass.

36.00 Enter scattering timber, bears NW. and SE.

40.00 Set an iron post, 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 19 on W half and S 20 on E half, from which.

A cedar, 12 ins. dia., bears N.  $22^{\circ}50'W.$ , 115 lks. dist., marked  $\frac{1}{4}$  S 19 B T

Subdivision of T. 31 S., R. 18 W.

Chains

- A cedar 8 ins. dia., bears N. 64° 30' E.,  
 49½ lks. dist., marked ¼ S 20 B T
- 67.75 Wash, 4 lks. wide, 1 ft. deep, drains SW.
- 74.95 Wash, .6 lks. wide, 6 ins. deep, drains SW.
- 80.00 Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in  
 the ground for cor. of secs. 17, 18, 19 and 20, marked  
 on brass cap
- T 31 S S 18 in NW  
 R 18 W S 17 in NE  
 S 20 in SE. and  
 S 19 in SW. quadrant; from which
- A cedar 10 ins. dia., bears N. 44° 45' W., 1.88  
 chs. dist., marked T 31 S R 18 W S 18 B T
- A cedar 6 ins. dia., bears N. 52° E., 2.46  
 chs. dist., marked T 31 S R 18 W S 17 B T
- A cedar 10 ins. dia., bears S. 37° 15' E., 2.05  
 chs. dist., marked T 31 S R 18 W S 20 B T
- A cedar 8 ins. dia., bears S. 65° W., 76  
 lks. dist., marked T 31 S R 18 W S 19 B T
- Land, rolling.
- Soil, gravelly loam and sandy, 6 to 8 ins. deep, on a  
 subsoil of cemented clay, 2nd rate.
- Timber, scattering cedar and pinon pine, last 44 chs.
- Undergrowth, scattering sagebrush and bunch grass.
- 
- S. 89° 57' E. on a random line bet. secs. 17 and 20.
- 40.00 Set temp. ¼ sec. cor.
- 80.18 Intersect N and S line 4 lks. S. of cor. of secs. 16, 17  
 20 and 21.
- Thence I run
- N. 89° 59' W. on a true line bet. secs. 17 and 20.
- Over rolling land through undergrowth of sagebrush and  
 scattering bunch grass.
- 8.00 Wash 10 lks. wide, 2 ft. deep, drains SW.
- 14.50 Enter dense timber, bears N. and S.

Subdivision of T. 31 S., R. 18 W.

Chains

- 22.35 Wagon road, bears N. and S.
- 24.50 Wash, 8 lks. wide, 1 ft. deep; drains S.
- 34.10 Wash, 65 lks. wide, 5 ft. deep, drains S.15°W.
- 40.09 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 17 on N half and S 20 on S half, from which
  - A cedar, 8 ins. dia., bears N.41°E., 14 lks. dist., marked  $\frac{1}{4}$  S 17 B T
  - A cedar, 6 ins. dia., brs. S.28°15'E., 61 lks. dist., marked  $\frac{1}{4}$  S 20 B T
- 47.75 Wash, 8 lks. wide, 1 ft. deep, drains SW.
- 59.30 Wash, 8 lks. wide, 1 ft. deep, drains SW.
- 65.60 Wash, 15 lks. wide, 1 ft. deep, drains SW.
- 80.18 The cor. of secs. 17, 18, 19 and 20.

Land, rolling.  
Soil, sandy loam, 6 to 12 ins. deep, on a subsoil of cemented clay, 2nd rate.

Timber, dense cedar and pinon pine, 65.50 chs.  
Undergrowth, scattering sagebrush and bunch grass.  
December 17: At this cor. I set off 23°20'S. on the decl. arc; and at 11h 56m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 38°07'.

December 17, 1910.

*Ralph Shirley*

Instrumentman G.L.O.

December 19, 1910: At 1h 57m p.m., l.m.t., I set off. 38°06' on the lat. arc; 23°23'S. on the decl. arc; and determine the meridian at cor. of secs. 17, 18, 19 and 20.

Thence I run S.89°54'W. on a random line bet. secs. 18 and 19.

- 40.00 Set temp.  $\frac{1}{4}$  sec. cor.
- 77.58 Intersect W. bdy. of Tp. 4 lks. S. of cor. of secs. 13, 18, 19 and 24, heretofore described.

Subdivision of T. 31 S., R. 16 W.

Chains

Thence I run

N.89°56'E. on a true line bet. secs. 18 and 19.

Over gently rolling land, through scattering cedar and pinon pine, with undergrowth of sagebrush.

Ascend.

21.53 Wagon road, bears NE. and SW.

33.58 Top of ridge, bears NE. and SW., 32 ft. above sec. cor.

Descend gently.

37.58 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 18 on N half and S. 19 on S half, from which

A cedar, 14 ins. dia., bears N.4°38'W., 26

lks. dist., marked  $\frac{1}{4}$  S, 18 B T

A cedar, 12 ins. dia., bears S.24°50'E.,

47 lks. dist., marked  $\frac{1}{4}$  S. 19 B T

40.98 Wash, 5 lks. wide, 18 ins. deep; course SW.

Ascend gently.

49.60 Top of small ridge, bears NE. and SW., 14 ft. above wash

Descend gently.

54.43 Wash, 10 lks. wide, 18 ins. deep, course SW., 20 ft.

below top of ridge.

61.60 Timber becomes heavier, bears N. and S.

65.60 Top of small ridge, bears NE. and SW., 14 ft. above wash.

Descend gently.

72.83 Wash, 5 lks. wide; 1 ft. deep, course SW.

77.58 The cor. of secs. 17, 18, 19 and 20.

Land, gently rolling.

Soil, sandy and grayelly, loams. 2nd and 3rd rate.

Timber scattering cedar and pinon pine.

Undergrowth, heavy sagebrush 2 ft. in height.

N.0°03'W. bet. secs. 17 and 18.

Over gently rolling land, through scattering timber.

Descend gently.

4.00 Wash, 10 lks. wide, 1 ft. deep; course SW.

Subdivision of T. 31 S., R. 18 W.

Chains

Ascend gently.

12.00 Top of ascent, bears NE. and SW., 22 ft. above wash.

Descend.

15.00 Wash, 10 lks. wide, 1 ft. deep, course SW.

34.60 Wash, 10 lks. wide, 3 ft. deep, course SW., 28 ft. below top of ridge.

38.00 Wash, 30 lks. wide, 7 ft. deep, course SW.

40.00 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 18

18 on W half and S 17 on E half, from which

A cedar 14 ins. dia., bears S. 89° 51' E., 46

lks. dist., marked  $\frac{1}{4}$  S 17 B T

A cedar, 6 ins. dia., bears S. 65° 50' W., 8

lks. dist., marked  $\frac{1}{4}$  S 18 B T

Ascend gently.

62.75 Old wagon road, bears NE. and SW.

73.50 Wash, 8 lks. wide, 18 ins. deep, course SW.

76.50 Enter heavier timber, bears NE. and SW.

80.00 Set an iron post, 3 ft. long, 2 ins. in dia., 24 ins. in the ground for cor. of secs. 7, 8, 17 and 18, marked on brass cap

T 31 S S 7 in NW

R 18 W S 8 in NE

S 17 in SE. and

S 18 in SW. quadrant, from which

A cedar, 12 ins. dia., bears N. 63° 54' W., 58

lks. dist., marked T 31 S R 18 W S 7 B T

A cedar, 12 ins. dia., bears N. 72° 29' E., 58

lks. dist., marked T 31 S R 18 W S 8 B T

A cedar, 6 ins. dia., bears S. 36° 40' E., 30

lks. dist., marked T 31 S R 18 W S 17 B T

A cedar, 8 ins. dia., bears S. 36° 05' W., 1.30

chs. dist., marked T 31 S R 18 W S 18 B T

Cos. is located 62 ft. above wash.

Land, gently rolling.

Soil, gravelly loam, 3rd rate.

Subdivision of T. 31 S., R. 18 W.

Chains

Timber, scattering cedar and pinon pine, undergrowth, sagebrush 2 ft. in height.

December 19, 1910.

December 20, 1910: Snow storm during forenoon prevented work. At 1h 57m p.m., l.m.t., I set off 38°07' on the lat. arc; 23°24'S. on the decl. arc; and determine a meridian at cor. of secs. 7, 8, 17 and 18.

Thence I run S.89°59'E. on a random line bet. secs. 8 and 17.

40.00 Set temp. 1/4 sec. cor.

80.12 Intersect N. and S. line 8 lks. N. of cor. of secs. 8, 9, 16 and 17.

Thence I run N.89°56'W. on a true line bet. secs. 8 and 17.

Over rolling mountainous land, through heavy cedar and pinon pine.

Descend gently.

27.52 Wagon road, bears N. and S.

37.32 Wash, 5 lks. wide, 1 ft. deep, course SW.

40.06 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap 1/4 S 8 on N half and S 17 on S half, from which

A cedar, 10 ins. dia., bears N.54°22'E., 80 lks. dist., marked 1/4 S 8 B T

A cedar, 8 ins. dia., bears S.30°30'W., 55 lks. dist., marked 1/4 S 17 B T

This cor. is located 180 ft. above sec. cor.

74.35 Old wagon road, bears N.15°W. and S.15°E.

Leave heavy, enter scattering timber, bears NE. and SW.

80.12 The cor. of secs. 7, 8, 17 and 18; 66 ft. below 1/4 sec. cor.

Land, rolling mountainous.

Soil, gravelly loam, 3rd rate.

Timber, heavy cedar and pinon pine, 75 chs., scattering

Subdivision of T. 31 S., R. 18 W.

Chains

timber 5 chs.  
Undergrowth scattering sagebrush 2 ft. high and scattering grass.

December 20, 1910.

December 21, 1910; At 9h 00m a.m., l.m.t., sky overcast, observation impossible.

S.89°56'W. on a random line bet. secs. 7 and 18.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

77.50 Intersect. W. bdy. of Tp. 11 lks. N. of bor. of secs. 7, 12, 13 and 18, heretofore described.

Thence I run

N.89°51'E. on a true line bet. secs. 7 and 18.

Over gently rolling land, through scattering cedar and pinon pine with undergrowth of sagebrush.

Descend gently.

2.90 Wash 5 lks. wide, 1 ft. deep; course SW.

Ascend gently.

5.50 Top of ascent, bears NE. and SW., 10 ft. above wash.

Descend.

15.40 Wash, 5 lks. wide, 1 ft. deep; course SW., 62 ft. below top of ascent.

37.50 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 7 on N half and S 18 on S half, from which

A cedar, 6 ins. dia., bears N.66°06'E., 94

lks. dist., marked  $\frac{1}{4}$  S 7 B T

A cedar, 12 ins. dia., bears S.51°15'W., 68

lks. dist., marked  $\frac{1}{4}$  S 18 B T

40.30 Wash, 10 lks. wide, 18 ins. deep, course SW.

Ascend gently.

65.50 Top of ascent, bears NE. and SW., 44 ft. above wash.

Descend gently.

70.40 Wash, 5 lks. wide, 1 ft. deep, course SW.

Ascend gently.

Chains

77.50

The cor. of secs. 7, 8, 17 and 18; 12 ft. above wash. Land, gently rolling. Soil, gravelly loam 3rd rate. Timber, scattering cedar and pinon pine. Undergrowth, sagebrush 2 ft. in height.

December 21, 1910.

Eric H. Anderson  
Instrumentman G.L.O.

December 21: Sky is overcast and solar observations are impossible.

From the cor. of secs. 7, 8, 17 and 18.

Thence I run

N.0°03'W. bet. secs. 7 and 8.

Over rolling land, through timber and scattering undergrowth of sagebrush and bunch grass.

40.00

Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for 1/4 sec. cor., marked on brass cap 1/4 S 7 on W half and S 8 on E half, from which

A cedar, 6 ins. dia., brs. N.64°30'W., 59

lks. dist., marked 1/4 S 7 B T

A pine 6 ins. dia., brs. N.43°15'E., 23

lks. dist., marked 1/4 S 8 B T

53.55

Wash, 20 lks. wide, 2 ft. deep, drains SW.

80.00

Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in the ground, for cor. of secs. 5, 6, 7 and 8, marked on brass cap

T 31 S S 6 in NW

R 18 W S 5 in NE

S 8 in SE. and

S 7 in SW. quadrants; from which

A cedar 8 ins. dia., brs. N.69°37'W., 45

lks. dist., marked T 31 S R 18 W S 6 B T

A cedar, 6 ins. in dia., brs. N.17°20'E., 60

lks. dist., marked T 31 S R 18 W S 5 B T

A cedar 12 ins. in dia., brs. S.44°27'E., 63

Subdivision of T. 31 S. R. 18 W.

Chains

1 ks. dist., marked T 31 S R 18 W S 8 B T  
 A cedar, 8 ins. dia., brs. S. 27° 05' W., 82 lks.  
 dist., marked T 31 S R 18 W S 7 B T  
 Land, rolling, drains SW.  
 Soil, sandy loam, 6 to 8 ins. deep., on subsoil of  
 cemented clay, 2nd rate.  
 Timber, cedars and pinon pine.  
 Undergrowth, scattering sagebrush and bunch grass.  
 December 21, sky is overcast.

*Ralph Gentry*

Instrumentman G.L.O.

December 21, 1910.  
 S. 89° 56' E. on a random line, bet. secs. 5 and 8.

- 40.00 Set temp.  $\frac{1}{4}$  sec. cor.  
 60.32 Intersect N. and S. line 6 lks. S. of cor. of secs. 4,  
 5, 8 and 9.  
 Thence I run  
 N. 89° 59' W. on a true line bet. secs. 5 and 8.  
 Over rolling land, through heavy cedar and pinon pine.  
 Descend gently.  
 21.82 Wash, 10 lks. wide, 2 ft. deep; course SW.  
 24.32 Wash, 5 lks. wide, 1 ft. deep, course SW.  
 Ascend gently.  
 26.30 Top of small ridge, bears NE. and SW.  
 Descend gently.  
 29.00 Wagon road, bears N. and S.  
 40.16 Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in  
 the ground for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S  
 6 on N half and S 8 on S half, from which  
 A cedar, 16 ins. dia., bears N. 32° 36' W., 33  
 lks. dist., marked  $\frac{1}{4}$  S 6 B T  
 A cedar, 12 ins. dia., bears S. 47° 45' E., 47  
 lks. dist., marked  $\frac{1}{4}$  S 8 B T  
 Ascend gently.  
 44.32 Top of ascent, bears NE. and SW.

Subdivision of T. 31 S., R. 18 W.

Chains	Descend gently.
46.52	Wash 5 lks. wide; 1 ft. deep; course SW. Ascend gently.
50.30	Top of ascent, bears NE. and SW. Descend gently.
66.22	Wash, 10 lks. wide, 1 ft. deep, course SW.
80.32	The cor. of secs. 5, 6, 7 and 8; 82 ft. below wash. Land, rolling. Soil, gravelly loam, 3rd rate. Timber, heavy cedar and pinon pine. Undergrowth, scattering sagebrush.
40.00	S.89°51'W. on a random line bet. secs. 6 and 7. Set temp. $\frac{1}{4}$ sec. cor.
77.60	Intersect W. bdy. of Tp. 28 lks. S. of cor. of secs. 1, 6, 7 and 12, heretofore described. Thence I run S.89°57'E. on a true line bet. secs. 6 and 7. Over rolling land, through heavy cedar and pinon pine. Ascend gently.
37.60	Set an iron post 3 ft. long, 1 in. in dia., 26 ins. in the ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 6 on N half; and S 7 on S half; from which A pinon pine, 6 ins. dia., bears N.48°30'W., 19 lks. dist., marked $\frac{1}{4}$ S 6 B T. 70 ft. above sec. cor.
66.60	No other trees within limits; raise mound of stone 2 ft. base, 1 $\frac{1}{2}$ ft. high N. of cor. Wash, 15 lks. wide, 2 ft. deep, course SW. Ascend gently.
77.60	The cor. of secs. 5, 6, 7 and 8, 70 ft. above $\frac{1}{4}$ sec. cor. Land, gently rolling. Soil, gravelly loam, 3rd rate. Timber, heavy cedar and pinon pine.

Subdivision of T. 31 S., R. 18 W.

Chains

Undergrowth, scattering sagebrush.

December 21, 1910.

*Eric H. Anderson*  
Instrumentman G.L.O.

N.0°03'W. bet. secs. 5 and 6.

Over rolling land, through scattering timber and undergrowth of sagebrush.

- 7.60 Wash, 6 lks. wide, 1 ft. deep, drains SW.
- 18.50 Descend into wash, brs. E. and W.
- 21.40 Wash, 8 lks. wide, 2 ft. deep, 15 ft. below top of descent, drains S.75°W.
- Ascend.
- 28.00 Top of asc. 25 ft. above wash, brs. E. and W.  
Thence over rolling land.
- 36.00 Timber becomes dense, brs. E. and W.
- 40.00 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 6 on W. half and S.5 on E half, from which
  - A cedar, 8 ins. dia., brs. N.83°45'W., 16 lks. dist., marked  $\frac{1}{4}$  S 6 B T
  - A pine, 8 ins. in dia., brs. E. 4 lks. dist., marked  $\frac{1}{4}$  S 5 B T
- Descend over broken surface.
- 75.00 Bottom of depression, drains W. 50 ft. below  $\frac{1}{4}$  sec. cor.  
Ascend.
- 80.00 Top of spur, 40 ft. above ft., brs. SW. and NE.  
Descend.
- 83.50 Wash, 6 lks. wide, 1 ft. deep, 30 ft. below spur, drains SW.  
Thence over broken hilly surface.
- 95.75 Wash, 10 lks. wide, 1 ft. deep, drains NW.  
Ascend.
- 99.00 Top of spur, 25 ft. above wash, projects W. about 5 chs.  
Descend.
- 105.10 Wash, 6 lks. wide, 2 ft. deep, 75 ft. below top of spur,

Subdivision of T. 31 S., R. 18 W.

Chains

drains SW.

Ascend.

110.97 Intersect Sixth Standard Parallel South 14.42 chs. W. of cor. of secs. 31 and 32, heretofore described.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for closing cor. of secs. 5 and 6, marked on brass cap

C C T 30 S R 18 WS 31 S 32 in N half

S 5 in SE. and

S 6 in SW quadrants, from which

A pine 6 ins. in dia., brs. S. 46° 30' E., 55 lks.

dist., marked C C T 31 S R 18 W S 5 B T

A pine 8 ins. in dia., brs. S. 77° 15' W., 44 lks.

dist., marked C C T 31 S R 18 W S 6 B T

Land, rolling and broken hills.

Soil, gravelly loam 6 to 8 ins. deep, on a subsoil of cemented clay, 3rd and 4th rates.

Timber, cedars and pinon pine.

Undergrowth of scattering sagebrush and grass.

December 21, 1910.

*Ralph Smith*

Instrumentman C.L.O.

GENERAL DESCRIPTION.

This township contains land, ranging from gently rolling valley to rough mountains, and the soil ranges from a rich sandy loam to rocky.

The SW. portion of this township is gently rolling valley covered with a dense growth of sagebrush and bunch grass. The soil is a rich sandy and gravelly loam which is from 6 to 8 ins. deep, on a subsoil of cemented clay. The cemented clay seems to hold moisture nearly all year. This soil can be classed as 1st and 2nd rates, and can produce crops without

irrigation.

The NE. portion of this township is nearly all rough mountains and can be classed as 3rd and 5th rates; is covered with a scant growth of sagebrush and bunch grass.

This township affords excellent grazing land for cattle and sheep.

This township is covered with a dense growth of cedars and pinon pine, except the extreme SW. cor. but the timber being so small has very little commercial value except for fuel and domestic uses. There are a few long leaf pine found in the mountains, but not enough to be of any value.

There are numerous outcroppings of quartz and porphyric ledges found in the mountains, showing traces of lead, silver and copper, but not sufficient quantity to return any of this land as mineral.

Little Basket Spring is found in sec. 4. There are numerous other springs of fresh water found in the gulches of the mountainous portion of this township, that were not seen from line.

There are no settlers on this township.

*Ralph G. Gentry*  
*Eric H. Anderson*  
Instrumentmen G.L.O.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

378

LIST OF NAMES.

A list of the names of the individuals employed by Ralph Gentry and Eric H. Anderson  
Instrumentman, G.L.O., United States <sup>Transitmen</sup> ~~Deputy Surveyor~~, to assist in running, measuring, and  
marking the lines and corners described in the foregoing field notes of the survey of subdivision  
of Tp. 31 S., Rs. 17 and 18 W., S.L.B. & M., Utah;  
showing the respective capacities in which they acted:

- ..... Lawrence D. Simmons ....., *Chainman.*
- ....., *Chainman.*
- ....., *Moundman.*
- ....., *Moundman.*
- ....., *Axman.*
- ....., *Axman.*
- ..... Roy Penn Barton ....., *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Ralph Gentry and Eric H. Anderson  
Instrumentman, G.L.O., United States <sup>Transitmen</sup> ~~Deputy Surveyor~~, in surveying all  
those parts or portions of the the subdivision of Township No. 31 S., RS. 17 and  
18 West

..... of the Salt Lake  
Base and ..... meridian, State of Utah ....., which are represented  
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey  
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the  
corner monuments established, according to the instructions furnished by the United States Surveyor  
General for U t a h.

- ..... Lawrence D. Simmons ..... *Chainman.*
- ....., *Chainman.*
- ....., *Moundman.*
- ....., *Moundman.*
- ....., *Axman.*
- ....., *Axman.*
- ..... Roy Penn Barton ....., *Flagman.*

Subscribed and sworn to before me this 3 }  
day of December, 1910. ~~XXX~~



Ralph Gentry  
Instrumentman, G.L.O.



FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Ralph Gentry, Instrument  
....., United States Deputy Surveyor, to assist in running, measuring, and  
marking the lines and corners described in the foregoing field notes of the survey of .....  
.....  
showing the respective capacities in which they acted:

- ....., *Chainman.*
- ....., *Chainman.*
- ....., *Moundman.*
- ....., *Moundman.*
- ....., *Asman.*
- ....., *Asman.*
- ....., *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted .....  
....., United States Deputy Surveyor, in surveying all  
those parts or portions of the .....

..... of the  
..... meridian, ..... of ....., which are represented  
in the foregoing field notes as having been surveyed by him and under his direction; and that said survey  
has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the  
corner monuments established, according to the instructions furnished by the United States Surveyor  
General for .....

- ....., *Chainman.*
- ....., *Chainman.*
- ....., *Moundman.*
- ....., *Moundman.*
- ....., *Asman.*
- ....., *Asman.*
- ....., *Flagman.*

Subscribed and sworn to before me this ..... }  
day of ....., 190 }



TRANSITMAN  
FINAL OATH OF UNITED STATES ~~DEPUTY~~ SURVEYOR.

I, Eric H. Anderson, ~~United States Transit~~ <sup>man</sup> ~~United States Deputy Surveyor~~, do solemnly swear that, in pursuance of ~~a contract~~ <sup>an assignment</sup> received from Thomas Hull United States Surveyor General for U t a h, bearing date of the 31 day of October, 1910, 190  , I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for U t a h, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of subdivision of Township 31 South, Ranges 17 and 18 West

..... of the Salt Lake Base and ..... meridian, in the State of Utah, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

*Eric H. Anderson*

United States Transitman. 01-1  
~~United States Deputy Surveyor.~~

Subscribed by said Eric H. Anderson, and sworn to before me) this 22 day of March, 1911 ~~xxx~~

*Thomas Hull*

U. S. Surveyor-General  
for Utah.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

....., 190

The foregoing field notes of the survey of .....

executed by ..... under his contract No. ...., dated ....., 190  , having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

.....  
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in ..... has been correctly copied from the original notes on file in this office.

.....  
United States Surveyor General.

FINAL OATHS OF DEPUTY SURVEYOR AND HIS ASSISTANTS.

LIST OF NAMES.

A list of the names of the individuals employed by Ralph Gentry and Eric H. Anderson  
Transitmen  
Instrumentmen G. L. O., United States Deputy Surveyor, to assist in running, measuring, and  
 marking the lines and corners described in the foregoing field notes of the survey of Subdivision and  
resurvey E. Bdy. T. 31 S., R. 17 W.; and subdivision T. 31 S., R. 18 W.  
S.L.B. & M., Utah,  
 showing the respective capacities in which they acted:

- E.R. Bunbury, Chas. Merrill ..... , *Chainman.*
- John G. Kienerberger ..... , *Chainman.*
- Roy Penn Barton ..... , *Chainman.*
- L.S. Nuttall ..... , *Moundman.*
- Willie Malcolm ..... , *Moundman.*
- Sidney Reese ..... , *Arman.*
- Joseph Murdock ..... , *Arman.*
- Roy Penn Barton ..... , *Flagman.*

FINAL OATH OF ASSISTANTS.

We hereby certify that we assisted Ralph Gentry and Eric H. Anderson  
Transitmen  
Instrumentmen G. L. O., United States Deputy Surveyor, in surveying all  
 those parts or portions of the subdivision and resurvey East Boundary T. 31 S., R.  
17 W.; and subdivision of T. 31 S., R. 18 W.

..... of the Salt Lake  
Base and ..... meridian, State of Utah ..... , which are represented  
 in the foregoing field notes as having been surveyed by him and under his direction; and that said survey  
 has been in all respects, to the best of our knowledge and belief, well and faithfully surveyed, and the  
 corner monuments established, according to the instructions furnished by the United States Surveyor

General for Utah.  
E. R. Bunbury, Chas. Merrill ..... , *Chainman.*  
John G. Kienerberger, Roy Penn Barton ..... , *Chainman.*  
L. S. Nuttall ..... , *Moundman.*  
Willie Malcolm ..... , *Moundman.*  
Sidney Reese ..... , *Arman.*  
Joseph Murdock ..... , *Arman.*  
 ..... , *Flagman.*

Subscribed and sworn to before me this 21  
 day of December, 1910., 190

Ralph Gentry  
 Instrumentman, G.L.O.



TRANSITMAN  
FINAL OATH OF UNITED STATES DEPUTY-SURVEYOR.

I, Ralph Gentry, United States Transitman, United States Deputy Surveyor, do solemnly swear that, in pursuance of an assignment received from Thomas Hull United States Surveyor General for Utah, bearing date of the 6 day of August, 1910, I have well, faithfully, and truly, in my own proper person, and in strict conformity with the instructions furnished by the United States Surveyor General for Utah, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of subdivision and retracement W. and N. Bdys. T. 34 S., R. 17 W.; subdivision of T. 33 S., R. 17 W.; subdivision and Ret. S. Bdy. T. 32 S., R. 18 W.; subdivision T. 31 S., R. 17 W.; and subdivision T. 31 S., R. 18 W.

..... of the Salt Lake Base and in books A.B.C.F. & I meridian in the State of Utah, which are represented in the foregoing field notes as having been surveyed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the United States Surveyor General for Utah and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

*Ralph Gentry*

United States Transitman  
United States Deputy Surveyor.

Subscribed by said Ralph Gentry, and sworn to before me  
this 15 day of March, 1911.

*Thomas Hull*

U. S. Surveyor-General

for Utah.



APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, Feb. 26, 1914

The foregoing field notes of the survey of the subdivisional lines of Township No. 31 South, Range No. 18 West of the Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry and Eric H. Anderson, Inspectors C. L. O. under his special instructions, dated August 6, 1910, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

*Thomas Hull*  
United States Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in....., has been correctly copied from the original notes on file in this office.

United States Surveyor General.

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# FIELD NOTES

OF THE SURVEY OF THE

ROUTE BOUNDARY

AND

RETRACEMENT

OF THE

EAST AND SOUTH BOUNDARIES

OF

TOWNSHIP No. 34 SOUTH, RANGE No. 20 WEST.

Of the Salt Lake Base and Meridian,

In the State of Utah

EXECUTED BY

Ralph Gentry

Transition

In the capacity of U. S. Surveyor, under instructions dated August 6, 1910,

issued by the United States Surveyor General to govern surveys included in

Group No. 3, which were approved by the Commissioner of the General Land

Office, Sept. 12, 1910, pursuant to authority contained in the Act of

Congress dated, 1910

Survey commenced April 3, 1911

Survey completed April 7, 1911

Handwritten notes and scribbles at the bottom of the page.

BOOK A-390

# INDEX DIAGRAM.

Township No. 34 SOUTH....., Range No. 20 WEST.....

6	5	4	3	2	1	0
7	8	9	10	11	12	5
18	17	16	15	14	13	4
19	20	21	22	23	24	4
30	29	28	27	26	25	3
31	32	33	34	35	36	2
				11	10	

Survey commenced April 3, 1911, and executed with a W. & L. E. Gurley explores transit, No. \_\_\_\_\_, with solar attachment. The horizontal limb is provided with two double verniers placed opposite to each other, reading to single minutes of arc, which is also the least count of the verniers of the latitude and declination arcs.

The instrument was examined, tested on the true meridian at Salt Lake, found correct, and was approved by the surveyor general for Utah, March 29, 1911.

I examine the adjustments of the transit, find them correct, then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At the cor. of Tps. 34 & 35 S., Rs. 19 and 20 W., which is a trachyte, 12 x 10 x 10 ins. above the ground, marked and witnessed as described by the surveyor general, in approximate latitude  $37^{\circ} 48' 37''$  N., longitude  $113^{\circ} 58' 39''$  W., I set off  $37^{\circ} 49'$  on the lat. arc;  $5^{\circ} 13' N.$  on the decl. arc; and at 4h. 34m. p.m. l.m.t., determine a meridian with the solar, and mark a point thereof, on a stake firmly set in the ground, 5 chs. N. of the cor. At 6h. 36m. p.m. l.m.t., I observe Polaris at western elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

April 3, 1911.

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April 4: At 7h 30m, a.m. l.m.t., I lay off the azimuth of Polaris,  $1^{\circ} 29'$  to the east, and mark the meridian thus determined, by driving a tack in the stake set last evening, on which the meridian falls 0.2 ins. to the west of the mark determined by the solar. At 8h 3m, a.m. l.m.t., I set off  $37^{\circ} 49'$  on the lat. arc;  $5^{\circ} 27'' N.$ , on the decl. arc; and mark a point in the meridian determined with the solar, on the stake already

## CHAINS

set, 5 chs. N. of my station; this mark falls 0.1 ins. W. of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for meridians, respectively about 0'10" east, and 0'5" west, of the meridian established by Polaris observations; therefore, I conclude that the adjustments of the transit are satisfactory.

The magnetic bearing of the true meridian at 8h 30m, a.m., is N.16°W., the angle thus determined gives the mag. decl. 16°E.

From the Tp. cor. already described, I retrace North, bet, secs. 31 and 36, on E. bdy. of Tp.

Along bottom of Hollow, through dense sage brush and bunch grass.

10.00 Ascend, spur, bears NW: and SE.

14.15 Enter scattering timber, bears NW. and SE.

22.00 A point 100 ft. above hollow, on W. end of spur.  
Descend.

37.30 Ravine, 25 ft. deep, course W.  
Ascend.

40.00 Fall 4 lks. W. of the  $\frac{1}{4}$  sec. cor., which is a sandstone 10 x 8 x 6 ins. above the ground, marked and witnessed as described by the surveyor general.

50.35 Top of spur, 115 ft. high, projects SW.  
Descend.

56.00 Ravine, 50 ft. deep, course SW.  
Ascend.

65.50 Top of spur, 50 ft. high, projects SW.  
Descend, slightly along W. side of ridge, over outcroppings of ledges.

79.82 Fall 7 lks. W. of the cor. of secs. 25-30-31 and 36, which is a trachyte 14 x 8 x 6 ins. above the ground, marked and witnessed as described by the surveyor general.

The course of this line is therefore N.0°03'E., and the dist. 79.82 chs.

## CHAINS

Land, rolling, hills.

Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber scattering cedars and pinon pine.

Undergrowth, sage brush and bunch grass.

---

North, retracing bet. secs. 25 and 30.

Over mountainous land, through timber and scattering undergrowth of sagebrush and bunch grass.

Descend.

5.00 Outcropping ledge, 10 ft. high.

19.50 Hollow, 100 ft. deep, course W.

Ascend gradually over rolling land.

40.15 Fall 5 lks. W. of the  $\frac{1}{2}$  sec. cor., which is a trachyte 8 x 8 x 6 ins. above the ground, marked and witnessed as described by the surveyor general.

Descend.

46.75 Hollow, 20 ft. below  $\frac{1}{2}$  sec. cor., course W.

Thence over nearly level land.

59.75 Wash, 20 lks wide, 6 ins., deep, course W.

Ascend. spur.

69.00 Top of spur, 40 ft. high, projects W.

Descend.

75.00 Wash at ft. of spur, 50 lks. wide, 4 ft. deep, course, W.

Thence over rolling land along E. side of hollow.

79.60 Fall 12 lks. W. of the cor. of secs. 19-24-25 and 30, which is a trachyte, 12 x 8 x 6 ins. above the ground, marked and witnessed as described by the surveyor general.

The course of this line is therefore N. 0° 05' E., and the dist. 79.60 chs.

Land, rolling hills.

Soil, light sandy loam, gravel and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber scattering cedar and pinon pine.

Undergrowth sagebrush and bunch grass.

April 4: At this cor. I set off 5° 30' N. on the decl.

CHAINS

arc; and at 12h 3m<sup>✓</sup>, 1.m.t., observe the sun on the meridian. The resulting lat. is 37° 50'.

---

North, retracing bet. secs. 19 and 24.

Over rolling hills, through timber and scattering undergrowth of sage brush and bunch grass.

Descend, slightly along E. side of hollow.

8.30 Old road, bears N.30°E., and S.30°W.

40.44 Fall 12 lks. W. of the  $\frac{1}{4}$  sec. cor., which is a quartzite, 10 x 8 x 6 ins. above the ground, marked and witnessed as described by the surveyor general.

41.00 Hollow, 30 ft. below sec. cor., course S.30°W.  
Ascend.

66.25 Top of ridge, 225 ft. high, bears N.75°E. and S.75°W.  
Descend.

79.96 Fall 26 lks. W. of the cor. of secs. 13-18-19 and 24, which is a trachyte 10 x 8 x 8 ins. above the ground, marked and witnessed as described by the surveyor general.

The course of this line is therefore N.0° 11'E., and the dist. 79.96 chs.

Land, rolling hills.

Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush and bunch grass.

April 4, 1911.

---

April 5: At 8h 3m<sup>✓</sup>, a.m. 1.m.t., I set off 37° 51' on the lat. arc; 5° 50'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13-18-19 and 24.

Thence I retrace

North, bet. secs. 13 and 18.

Over rolling hills, through timber and scattering undergrowth of sage brush and bunch grass.

EAST BOUNDARY OF T.34 S., R.20 W.

CHAINS		
	Descend.	
17.50	Hollow, 100 ft. deep, course S.30°W.	
	Thence along bottom of hollow.	
39.95	The $\frac{1}{4}$ sec. cor. which is a trachyte 10 x 8 x 8 ins. above the ground, marked and witnessed as described by the surveyor general.	
	The course of this line is therefore North and the dist. 39.95 chs.	
	I continue retracement	
	North bet. secs. 13 and 18.	
12.00	Leave hollow, ascend ridge, bears NE.	
33.00	Top of ridge, 100 ft. high, bears NE. and SW.	
	Descend.	
39.95	Fall 23 lks. W. of the cor. of secs. 7-12-13 and 18, which is a quartz porphyry, 12 x 12 x 10 ins. above the ground, marked and witnessed as described by the surveyor general.	
	The course of this half mile is therefore N.0° 20'E., and the dist., 39.93 chs.	
	Land, rolling hills.	
	Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.	
	Timber, cedars and pinon pine.	
	Undergrowth, scattering sage brush and bunch grass.	
	<hr/>	
	North, on retracement bet. secs. 7 and 12.	
	Over rolling hills, through timber and scattering undergrowth of sage brush and bunch grass.	
	Descend.	
4.90	Ravine, 20 ft. below sec. cor., course NE.	
	Ascend.	
17.52	Power line, from Modena to Gold Springs, bears N.30°W., and S.30°E.	
36.50	Top of ridge, 200 ft. above hollow, bears NW. and SE.	
	Descend.	
40.50	Fall 23 lks. W. of the $\frac{1}{4}$ sec. cor., which is a quartz-	

CHAINS

porphyry 10 x 10 x 6 ins. above the ground, marked and witnessed as described by the surveyor general.

The course of this half mile is therefore N.0° 20'E., and the dist., 40.50 chs.

I off set over the  $\frac{1}{4}$  sec. cor. and continue retracement North bet. secs. 7 and 12.

Descend.

4.00 Ravine, 42 ft. deep, course E.

Ascend.

8.00 Top of spur, 50 ft. high, projects NE.

Descend.

18.70 Hollow, 75 ft. deep, course SE.

Ascend.

32.00 Spur, 50 ft. high, projects W.

Descend.

36.00 Ravine, 25 ft. deep, course W.

Ascend.

39.08 Fall 41 lks. W. of the cor. of secs. 1-6-7- and 12, which is a sand stone, 10 x 10 x 8 ins. above the ground marked and witnessed as described by the surveyor general.

The course of this line is therefore N.0° 35'E., and the dist. 39.08. chs.

Land, rolling, hills.

Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber, cedars and pinon pine.

Undergrowth, scattering sage brush and bunch grass.

April 5; At this cor. I set off 5° 53'N on the decl. arc; and at 12h 3m<sup>p.m.</sup>, 1.m.t., observe the sun on the meridian.

The resulting lat. is 37° 53'.

---

North on retracement bet, secs 1 and 6.

Over mountainous land, through timber and scattering undergrowth of sage brush and bunch grass.

Descend.

## CHAINS

- 6.25 Ravine, 30 ft. deep, course SW.  
Ascend.
- 16.00 Top of spur, projects E., 65 ft. high.  
Descend.
- 29.00 Ravine, 75 ft. deep, course E.  
Ascend.
- 39.71 Fall 26 lks. W. of the  $\frac{1}{4}$  sec. cor. which is a trachyte,  
12 x 12 x 6 ins. above the ground, marked and witnessed  
as described by the surveyor general.  
The course of this half mile is therefore N. 0° 24' E.,  
and the dist. 39.71 chs.  
I off set over the  $\frac{1}{4}$  sec. cor and continue retracement  
North bet. secs. 1 and 6.
- 6.14 Telephone line, Modena to Gold Springs, bears NW. and SE.
- 6.50 Top of spur, 175 ft. high, projects E.  
Descend.
- 9.50 Ravine, 30 ft. deep, course E.  
Ascend.
- 31.75 Top of ridge, 400 ft. above  $\frac{1}{4}$  sec. cor., bears NE. and SW.  
Descend.
- 39.37 Fall 19 lks. E. of the cor. of Tps. 33 and 34 S., Rs. 19  
and 20 W., which is a quartz-porphry 10 x 10 x 8 ins.  
above the ground, marked and witnessed as described by  
the surveyor general.  
The course of this half mile is therefore N. 0° 17' W.,  
and the dist 39.37 chs.  
Land, mountainous.  
Soil, light sandy loam and loose rock, 4th rate, on a  
subsoil of clay and loose rock.  
Timber, cedars and piñon pine.  
Undergrowth, scattering sage brush and bunch grass.

April 5, 1911.

NORTH BOUNDARY OF T.34 S.,R.20 W.

CHAINS.

April 6; At 8h 3m., a.m.l.m.t., I set off  $37^{\circ} 54'$  on the lat. arc;  $6^{\circ} 12' N.$  on the decl. arc; and determine a meridian with the solar at the cor. of Tps.33 and 34 S., Rs. 19 and 20 W.,

Thence I run

West, bet. secs. 1 and 36, on N. bdy. of Tp.

Over mountainous land, through timber and scattering undergrowth of sage brush and bunch grass.

Descend.

4.00 Ravine, 100 ft. below Tp. cor., course N.

Ascend.

16.50 Top of spur, 50 ft. high, projects N.

Descend.

35.75 Telephone line, Modena to Gold Springs, bears NW. and SE.

38.20 Hollow, 200 ft. deep, course SW.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 36 on N. half and S 1 on S. half: from which

A pinon, 8 ins. dia., bears  $N.35^{\circ} 20'E.$ , 49 lks.

dist., marked  $\frac{1}{4}$  S 36 B T.

A pinon, 8 ins. dia., bears  $S.6^{\circ} 45'W.$ , 106 lks.

dist., marked  $\frac{1}{4}$  S 1 B T.

43.80 Spur, 30 ft. high, projects S.

Descend.

49.65 Ravine, 75 ft. deep, course S.

Ascend.

52.70 Top of spur, 25 ft. high, projects S.

Descend.

57.50 Hollow, 30 ft. deep, running water in bottom, 6 lks. wide 2 ins. deep, course S.

Ascend.

62.50 Top of spur, 100 ft. high, projects N.

Descend.

66.35 Ravine 25 ft. deep, course N. Road in ravine, from Modena to Gold Springs, bears N. and S.

Ascend.

NORTH BOUNDARY OF T.34 S., R.20 W.

Chains	
73.00	Power line, from Modena to Gold Springs, bears N.30° W. and S.30° E.
80.00	<p>Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 1, 2, 35, and 36, marked on brass cap</p> <p style="padding-left: 40px;">T 33 S S 35 in NW.  R 20 W S 36 in NE.  R 20 W S 1 in SE.; and  T 34 S S 2 in SW. quadrant; from which</p> <p style="padding-left: 40px;">A pinon, 6 ins. dia., bears N.64°50'E.44 lks. dist. marked T 33 S R 20 W S 36 B T</p> <p style="padding-left: 40px;">A pinon, 10 ins. dia., bears N.39°20'W.113 lks. dist., marked T 33 S R 20 W S 35 B T</p> <p>Land, mountainous.</p> <p>Soil, light, sandy loam and loose rock; 4th rate, on a subsoil of clay and loose rock.</p> <p>Timber, cedar and pinon pine.</p> <p>Undergrowth, scattering sagebrush and bunch grass.</p> <p>April 6: At this cor. I set off 6°16'N. on the decl. arc; and at 12h 3m p.m. l.m.t., observe the sun on the meridian; the resulting lat. is 37°54'</p>
	<p style="text-align: center;">West, bet. secs. 2 and 35</p> <p>Over mountainous land; through timber and scattering undergrowth of sagebrush and bunch grass. Ascend.</p> <p>9.00 Top of ridge, 70 ft. above sec. cor., bears N. and S. Descend.</p> <p>20.25 Ravine, 160 ft. deep, course S. Ascend.</p> <p>31.50 Top of ridge, 180 ft. high, bears N. and S. Descend.</p> <p>35.00 Set temp. cor. for closing cor. of Tps. 33 and 34 S., R. 20 W. This corner was afterward destroyed, and permanent cor. set as follows, at</p> <p>35.02 Apr. 14, 1911: At a point N. 1°40' W. 1.56 chs. of the 239th mile post of the Utah-Nevada Bdy., described in notes</p>

Chains.

Of the retracement of Utah-Nevada Bdy.,  
 Set an iron post 3 ft. long, 3 ins. dia., 24 ins. in the  
 ground, for closing cor. of Tps. 33 and 34 S., R. 20 W.  
 marked on brass cap

UTAH on E. half,  
 C C NEVADA on W. half,  
 T 33 S R 20 W S 35 in NF.; and  
 T 34 S R 20 W S 2 in SE. quadrant; from which

A pinon, 6 ins. dia., bears N. 60° 45' E. 33 lks.  
 dist., marked T 33 S R 20 W S 35 B T  
 A pinon, 6 ins. dia., bears S. 67° 35' E. 28 lks.  
 dist., marked T 34 S R 20 W S 2 B T

Land, mountainous.  
 Soil, light sandy loam and loose rock, 4th rate, on a  
 subsoil of clay and loose rock.  
 Timber, cedars and pinon pine.  
 Undergrowth, scattering sagebrush and bunch grass.

April 14, 1911.

RETRACEMENT

SOUTH BOUNDARY OF T.34 S., R.20 W.

April 7: At 8h 2m a.m. l.m.t., I set off 37° 49' on the  
 lat. arc; 6° 35' N. on the decl. arc; and determine a me-  
 ridian with the solar at the cor. of Tps. 34 & 35 S., Rs.  
 19 and 20 W. Thence I retrace

West, on S. bdy. of sec. 36 on S. bdy. of Tp.

Over level land, in bottom of hollow, through sagebrush  
 and bunch grass.

- 4.00 Wash, 30 lks. wide, 10 ft. deep, course SE.
- 4.55 Road, from Modena to Gold Springs and Pioche, bears NW.  
and SE. Leave hollow, ascend spur, bears NW. and SE.
- 9.00 Enter scattering timber, bears NW. and SE.
- 25.00 Spur, 75 ft. high, projects S. Descend.
- 34.00 Ft. of spur, bears NW. and SE. Leave timber. Thence over  
rolling land.

Retracement of South Boundary of T. 34 S., R. 20 W.

Chains

35.50 Old road, bears N. and S.

40.13 The  $\frac{1}{4}$  sec. cor., which is an iron post, 1 in.dia., 12 ins. above ground, marked and witnessed as described by the surveyor general.

61.50 Descend into ravine, bears NW. and SE.

64.00 Foot of descent; 75 ft. below top, bears NW. and SE. Thence over level land across ravine.

76.50 Ascend; enter heavy timber, bears NW. and SE.

80.20 Fall 1 lk..N. of the cor. of secs. 35 and 36, which is an iron post, 3 ins.dia., 12 ins. above the ground, marked and witnessed as described by the surveyor general. The course of this line is therefore west, and the dist. 80.20 chs.

Land, rolling:

Soil, light sandy loam, gravel and loose rock, 3d rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon pine.

Undergrowth, of sagebrush and bunch grass.

Thence I retrace

West on S. bdy. of sec. 35,

Over rolling land; through timber and scattering sagebrush and bunch grass.

30.90 The closing Tp. cor. of Tps. 34 and 35 S., R. 20 W., which is an iron post 3 ins.dia., 12 ins. above the ground, marked and witnessed as described by the surveyor general.

The course of this line is therefore W., and the dist.

30.90 chs.

From this C.C. the 245th mile post bears north 33 lks. dist. Land, rolling.

Soil, light sandy loam, gravel and loose rock, 4th rate on a subsoil of clay and loose rock.

Timber, cedar and pinon pine.

Undergrowth, scattering sagebrush and bunch grass.

April 7: At this cor. I set off 6°38'N. on the decl. arc;

Retracement of South Boundary of T. 34 S., R. 20 W.

Chains

and at 12h 3m p.m. l.m.t., observe the sun on the meridian, the resulting lat. is 37°49'.

April 7, 1911.

BOUNDARIES OF T. 34 S., R. 20 W.  
Latitudes, Departures and Closing Errors.

Line Designated	True Bearing	Dist. Chs.	Latitudes		Departures	
			N. Chs.	S. Chs.	E. Chs.	W. Chs.
South Boundary	West	111.10				111.10
Utah-Nevada Bdy.;						
Tp.cor.to 245M.	North	0.33	0.33			
245M to 244M	N.2°39'E.	80.04	79.95		3.70	
244M to 243M	N.4°11'W.	78.21	78.00			5.70
243M to 242M	N.0°31'E.	79.64	79.64		0.72	
242M to 241M	N.1°22'W.	79.58	79.56			1.90
241M to 240M	N.0°25'W.	79.31	79.31			0.58
240M to 239M	N.1°05'E.	79.64	79.63		1.51	
239M to Tp. Cor.	N.1°40'W.	1.56	1.56			.05
North Boundary	East	115.02			115.02	
East Boundary:						
E.Bdy.Sec. 1	S.0°17'E.	39.37		39.37	0.19	
" " " "	S.0°24'W.	39.71		39.71		0.28
E.Bdy.Sec. 12	S.0°35'W.	39.08		39.08		0.40
" " " "	S.0°20'W.	40.50		40.50		0.24
E.Bdy.Sec. 13	S.0°20'W.	39.93		39.93		0.23
" " " "	South	39.95		39.95		
E.Bdy.Sec. 24	S.0°11'W.	79.96		79.96		0.26
E.Bdy.Sec. 25	S.0°05'W.	79.60		79.60		0.12
E.Bdy.Sec. 36	S.0°03'W.	79.82		79.82		0.07
Convergency					0.14	
T o t a l s			477.98	477.92	121.28	120.93
			477.92		120.93	
Error in lat. and dep.			.06		.35	

BOUNDARIES OF T.34 S., R.20 W.

For general description see notes of the subdivision of T.34 S., R.20 W.

*Ralph Gentry*  
U.S. Transitman.

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#  
R0390**

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**Page**



FINAL OATH OF UNITED STATES SURVEYOR.

I, \_\_\_\_\_, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for \_\_\_\_\_ bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 191\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_

~~For final oath of transitman see book "V" T. 31 E., R. 19 "W."~~

\_\_\_\_\_ of the \_\_\_\_\_ Meridian, in the State of \_\_\_\_\_, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

\_\_\_\_\_  
U. S. Surveyor.

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 191\_\_\_\_ }



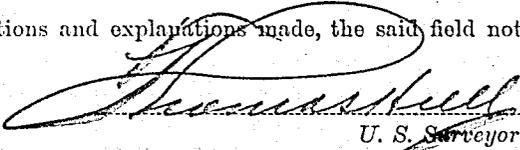
APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, Feb. 26 \_\_\_\_\_, 1914.

The foregoing field notes of the ~~survey~~ of retracement of east and south, and survey of north boundaries of Township No. 34 South, Range No. 20 West of the Salt Lake Base and Meridian, Utah,

executed by \_\_\_\_\_ Ralph Gentry \_\_\_\_\_ under his special instructions dated \_\_\_\_\_ August 6, \_\_\_\_\_, 1910, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

  
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.

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EN.  
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Filed March 25, 1912.  
WSH.

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K.

BOOK A-390  
FIELD NOTES

E.R.

OF THE SURVEY OF THE

RETRACEMENT

OF THE

UTAH-NEVADA BOUNDARY LINE

THROUGH

TOWNSHIPS NOS. 31, 32, 33, and 34 SOUTH

RANGES No. 20 WEST

Of the SALT LAKE BASE AND Meridian,

In the State of U T A H

EXECUTED BY

RALPH GENTRY

Transitman

In the capacity of U.S. Surveyor, under instructions dated August 6, 1910,

issued by the United States Surveyor General to govern surveys included in

Group No. 3, which were approved by the Commissioner of the General Land

Office, September 12, 1910, pursuant to authority contained in the Act of

Congress dated \_\_\_\_\_, 191

Survey commenced April 7, 1911

Survey completed July 26, 1911

FIELD NOTES

BOOK A-390

# INDEX DIAGRAM.

Township \_\_\_\_\_, Range \_\_\_\_\_

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19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

RETRACEMENT

UTAH-NEVADA BOUNDARY LINE THROUGH T.34 S.,R.20 W.

CHAINS

Survey commenced April 7, 1911, and executed with the instrument described in book "J" of this survey. Knowing from previous tests, (see book "J", of this survey) that the adjustments of the instrument are correct, I proceed as follows:-

At the 245th. mile post, which is a cedar post, 4 ins. sq., 36 ins. above the ground, mkd. 245 M on S., Nevada on W., L 37 on N., and UTAH on E. face; in approximate lat.  $37^{\circ}48'37''N.$ , longitude  $114^{\circ}00'18''W.$ , I set off  $37^{\circ}49'$  on the lat. arc;  $6^{\circ}40'N.$  on the decl. arc; and at 2h. 3m. p.m.l.t., I determine a meridian with the solar. From the 245th mile post, the C.C. to Tps. 34 and 35 S., R. 20 W. bears south 33 lks. dist. Thence I retrace

X North, on 245th. mile.

Over rolling land, broken by ravines, through scattering timber, and bunch grass and sage brush.

Descend.

3.90 Ravine, 25 ft. deep, course E.

Ascend.

7.00 Top of ascent, bears E. and W.

Thence over rolling land.

12.85 Wash, 10 lks. wide, 1 ft. deep, drains E.

Ascend.

24.00 Top of spur, 30 ft. high, projects E.

Descend.

29.25 Ravine, 40 ft. deep, course S.  $70^{\circ}E.$

Ascend.

35.50 Top of ridge, 65 ft. above ravine, bears N.  $75^{\circ}W.$  and S  $75^{\circ}E.$

Descend.

42.00 Ravine, 20 ft. deep, course E.

Ascend.

48.00 Leave ravine, bears E and W.

Thence over rolling land.

54.15 Wash, 5 lks. wide, 1 ft. deep, course SE.

63.00 Wash, 6 lks. wide, 2 ft. deep, course E.

67.25 Wash, 10 lks. wide, 1 ft. deep, course SE.

75.20 Wash, 15 lks. wide, 1 ft. deep, course E.

## RETRACEMENT

UTAH-NEVADA BOUNDARY LINE THROUGH T.34 S., R. 20W.

## CHAINS

79.95	<p>Fall 370 lks. dist., W. of the 244 th. mile post, which is a cedar post, 4 ins. Sq. 36 ins. above the ground, marked and witnessed as described by the surveyor general.</p> <p>The course of this line is therefore N.2° 39'E., and the dist. 80.04 chs.</p> <p>Land, rolling and broken. Soil light sandy loam, stony, 3d rate, on subsoil of stiff clay and loose rock.</p> <p>Timber, scattering cedar and pine. Undergrowth sagebrush and bunch grass.</p>
	<p>North, retracing the 244th mile.</p> <p>Over rolling land, and through scattering timber and undergrowth of sage brush and bunch grass.</p>
26.65	Wash, 10 lks. wide, 1 ft. deep, course NE.
44.00	Descend into ravine, bears E. and W.
47.00	Ravine, 40 ft. deep, course E.
	Ascend.
54.50	Leave ravine, bears E. and W.
78.00	<p>Fall 5.70 chs. dist. E. of the 243rd mile post, which is a cedar post, 4 ins. sq., 48 ins. above the ground, marked and witnessed as described by the surveyor general.</p> <p>The course of this line is therefore N.4° 11'W., and the dist. 78.21. chs.</p> <p>Land rolling.</p> <p>Soil. light sandy loam, stony, 3rd. rate, 8 to 12 ins. deep on a subsoil of stiff clay and loose rock.</p> <p>Timber, scattering cedars and pinon pine.</p> <p>Undergrowth of sage brush and bunch grass.</p>
	<p>North, retracing the 243rd mile.</p> <p>Over rolling land., through scattering timber and undergrowth of sage brush and bunch grass.</p>
8.50	Descend into ravine, bears NW. and SE.
24.00	Foot of descent, 25 ft. below top, bears NW. and SE.
	Thence over level land, across bottom of ravine.
24.00	After diligent search, no signs of cedar post as described in notes, was found.

RETRACEMENT  
 UTAH-NEVADA BOUNDARY LINE THROUGH T. 34 S., R. 20 W.

CHAINS

33.53 Road, Pioche to Modena, bears NW. and SE.  
 Ascend, ridge.

39.00 Top of ridge, 75 ft. above ravine, bears N. and S.  
 Thence along top of ridge.

79.64 Fall 72 lks. W. of the 242nd mile post, At this point  
 I find a stone mkd. +, in a old mound, and a old cedar  
 post, partly decayed and destroyed laying by the mound.  
 From this old mound

A cedar, 8 ins. diam., bears N. 87° E., 38½ lks. dist.,  
 marked 242 M Utah B T.

A cedar, 7 ins. diam., bears S. 79° W., 6 lks. dist.,  
 marked 242 M NEVADA B T.

Therefore I set a cedar post, 4 ins. sq., 5 ft. long,  
 2 ft. in the mound over marked stone, marked UTAH on  
 E., 242 M on S., NEVADA on W., and L 37 on N. face.

The course of this line is therefore N. 0° 31' E., and the  
 dist. 79.64 chs.

Land, rolling and mountainous.

Soil, clay, light sandy loam and gravel, stony, 2nd and  
 -3rd. rate, on a subsoil of stiff clay and loose rock.

Timber, scattering cedars and pinon pine.

Undergrowth of sage brush and bunch grass.

Mountainous land, 46.00 chs.

April 7, 1911.

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April 8: At 8h. 2m. a.m. I set off 57° 51' on the  
 lat. arc; 6° 58' N. on the decl. arc; and determine a mer-  
 idian with the solar at the 242nd mile post.

Thence I retrace

North, on the 242nd mile

Over mountainous land, through scattering timber and  
 undergrowth of sage brush and bunch grass.

Along top of ridge, nearly level.

6.00 Enter heavy timber, bears E. and W.

42.00 Enter scattering timber, bears NW. and SE.

## CHAINS

- 44.50 Descend into ravine, bears NW. and SE.
- 50.50 Ravine, 40 ft. deep, course SE.  
Ascend.
- 79.56 Fall 190 lks. E. of the 241st mile post, which is a cedar post, 4 ins. sq., 48 ins. above the ground, marked and witnessed as described by the surveyor general.  
The course of this line is therefore N.1° 22'W., and the dist. 79.58 chs.  
Land, mountainous.  
Soil, clay and light sandy loam, stony, 4th rate, on a subsoil of clay and loose rock.  
Timber, cedars and pinon pine.  
Undergrowth of sage brush and bunch grass.
- 
- North, retracing the 241st mile.  
Over mountainous land, through scattering timber and undergrowth of sage brush and bunch grass.  
Ascend.
- 20.00 Enter heavy timber bears E. and W.
- 28.00 Top of ridge, 50 ft above 241st mile post, bears N.10°E and S.5°W.  
Descend along west side of ridge.
- 40.00 A point, 40 ft. below top of ridge,  
Ascend.
- 79.31 Fall 58 lks. dist. E. of the 240th mile post, which is a cedar post, 4 ins. sq., 48 ins. above the ground, marked and witnessed as described by the surveyor general.  
The course of this line is therefore N.0°25'W. 79.31 chs.  
Land, mountainous.  
Soil, clay and light sandy loam, stony, 4th rate, 8 to 12 ins. deep on a subsoil of clay and loose rock.  
Timber, cedars and pinon pine.  
Undergrowth of sage brush and bunch grass.
-

## CHAINS

North, retracing the 240th mile.

Along west slope of ridge, through scattering timber and sage brush and bunch grass, on nearly level line.

7.00 Enter ravine; descend.

17.00 Ravine, 75 ft. deep, course W.

Ascend.

52.00 Top of spur, 175 ft. above ravine, projects W.

Descend.

65.10 Ravine, 75 ft. deep, course SW.

Ascend.

68.50 Top of spur, 45 ft. above ravine, projects SW.

Descend.

72.00 Ravine, 25 ft. deep, course W.

Ascend.

79.40 Top of spur, 65 ft. above ravine, projects W.

Descend.

79.65 At a point, 151 lks. dist. E., I find a stone marked +, in an old mound, and an old cedar post, partly decayed and destroyed lying by the mound.

The cor. being nearly obliterated, I proceed as follows: Set a cedar post, 4 ins. sq., 5 ft. long, 2 ft. in the mound over marked stone, marked UTAH on E. 239 M on S., NEVADA on W., and L 37 on N. face.

The course of this line is therefore N.  $1^{\circ} 05'$  E., and the dist. 79.64. chs.

Land, mountainous.

Soil, clay and light sandy loam, stony, 4th rate, 8 to 12 ins. deep on a subsoil of clay and loose rock.

Timber, cedars and pinon pine.

Undergrowth of sage brush and bunch grass.

April 8, 1911.

April 14: At 2h. p.m. l.m.t., I set off  $37^{\circ} 54'$  on the lat. arc;  $9^{\circ} 15' N.$ , on the decl. arc; and determine a meridian with the solar at the 239th mile post.

Thence I retrace

CHAINS

North, on the 239th mile.

Over mountainous land; through heavy timber, and scattering sage brush and bunch grass.

Descend.

8.80 Ravine, 25 ft. deep, course SW.

Ascend.

14.70 Top of spur, 60 ft. above ravine, projects SW.

Descend.

19.70 Ravine, 25 ft. deep, course SW.

Ascend.

25.60 Top of spur, 80 ft. above ravine, projects S. 70° W.

Descend.

43.60 Top of spur, 125 ft. above ravine, projects SW.

Descend. Leave Timber, bears NE. and SW.

59.35 Road, Gold Springs to Fay, bears NE and SW.

59.85 Hollow, 275 ft. deep, fresh water, 6 lks. wide, 6 ins. deep, course SW.

Ascend.

64.00 Enter timber, bears E. and W.

73.81 Found 214 lks. dist. E. of the 238.0625th mile post, which is a cedar, <sup>post</sup> 4 ins. sq., 48 ins. above the ground, set in a mound of earth and stone, mkd. and witnessed as described by the surveyor general.

The course of this line is therefore N. 1° 40' W., and the dist. 73.84 chs.

Land, mountainous.

Soil, light sandy loam, stony, 4th rate, on a subsoil of clay and loose rock.

Timber cedars and pinon pine.

April 14, 1911

April 15: At 8h. a.m. l.m.t., I set off 37° 55' on the lat. arc; 9° 32' N. on the decl. arc; and determine a meridian with the solar at the 238.0625th mile post. Thence I retrace

North, on the 238th mile.

Over mountainous land; through timber and undergrowth.

## RETRACEMENT

UTAH-NEVA DA BOUND A RY LINE THROUGH T. 33 S., R. 20 W.

CHAINS	
	Descend.
5.30	Ravine, 50 ft. deep, course SW.
	Ascend.
6.70	Power transmission line, Modena to Gold Springs, bears NW. and SE.
15.14	NW. cor. of the Jennie No 1 mill bears E. 88 lks. dist.
23.00	Top of ridge, 165 ft. above ravine, bears SW. and NE. Descend, along W. side of mountain.
26.00	Point, 30 ft. below top of ridge. Ascend.
28.25	Road, Gold Springs to Fay, bears NW and SE.
58.50	Top of spur, 100 ft. high, projects W., about 4 chs. Descend.
63.00	Ravine, 75 ft. deep, course W. Ascend.
79.00	Top of spur, 175 ft. high, projects W. Descend.
82.50	Ravine, 50 FT. deep, course N.60°W. Ascend.
83.43	Fall 58 lks. E. of the 237th mile post, which is a cedar post, 4 ins. sq. 36 ins. above the ground, marked and witnessed as described by the surveyor general. The course of this line is therefore N.0° 24'W., and the dist. 83.43 chains. Land, mountainous. Soil, light sandy loam and gravel, stony, 4th rate, on a subsoil of clay and loose rock. Timber, cedars and pinon pine. Undergrowth, sage brush and bunch grass.
	<hr/>
	North, retracing the 237th mile. Over mountainous land, through timber, and scattering sage brush and bunch grass. Ascend.
5.50	Top of spur, 50 ft. high, projects W.

RETRACEMENT

UTAH-NEVADA BOUNDARY LINE THROUGH T.33 S., R.20 W.

CHAINS	
	Descend.
9.20	Hollow, 150 ft. deep, course S.15°W.
	Ascend.
10.20	Road, Fay to State Line, bears NE. and SW.
31.00	A point, on E. side of mountain, 300 ft. above hollow.
	Thence on nearly level line, along side of mountain.
45.00	Descend.
56.85	Ravine, 100 ft. deep, course, E.
	Ascend.
71.00	Top of spur, 140 ft. high, projects E.
	Descend.
77.95	Fall 19 lks. E. of the 236th mile post, which is a
	cedar post, 4 ins. sq., 48 ins. above the ground, marked
	and witnessed as described by the surveyor general.
	Course of mile is therefore N.0°08'W.77.95 chs.
	Land, mountainous,
	Soil, light sandy loam and loose rock, 4th rate, on a
	subsoil of clay and loose rock.
	Timber, heavy cedars and pinon pine.
	Undergrowth, sage brush and bunch grass.
	April 15: At this cor. I set off 9° 35'W., on the decl.
	arc; and at 12h. l.m.t., I observe the sun on the meridian
	the resulting lat. is 37° 57'.
	North, retracing the 236th mile.
	Over mountainous land, through timber and scattering
	sage brush and bunch grass.
	Descend.
3.00	Ravine, 50 ft. deep, course E.
	Ascend.
13.00	Ledge outcropping, 40 ft. high.
24.50	Top of spur, 300 ft. high, projects E.
	Descend.
45.70	Ravine, 150 ft. deep, course E.
	Ascend.
51.00	Top of ridge, 125 ft. above ravine, bears E. and W.
	Descend.

RETRACEMENT

UTAH-NEVADA BOUNDARY LINE THROUGH T.33 S., R.20 W.

CHAINS

60.00 Ravine, 100 ft. deep, course E.  
Ascend.

66.00 Top of ridge, 85 ft. above ravine, bears E. and W.  
Descend

73.00 Ravine, 135 ft. deep, course NW.  
Ascend.

80.00 Top of ascent, 25 ft. above ravine,  
Descend gradually.

85.55 Hollow, 140 ft. deep, course W.  
Thence on nearly level line.

89.35 Wash, 4 lks wide 1 ft. deep, course SW.  
Ascend.

98.10 Fall 74 lks. E. of the 234.75th mile post, which is a  
pinon pine post, 4 ins. sq. 48 ins. above the ground,  
marked and witnessed as described by the surveyor  
general.  
The course of this line is therefore N.0° 26' W., and the  
dist. 98:10 chs.  
Land, mountainous.  
Soil, light sandy loam and gravel, stony, 4th rate. on  
a subsoil of clay and loose rock.  
Timber, cedars and pinon pine.  
Undergrowth, scattering sage brush and bunch grass.  
April 15, 1911.

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April 17 : At 8h. a.m. l.t., I set off 37° 57' on the  
lat. arc; 10° 15' N. on the decl. arc; and determine a  
meridian with the solar at the 234.75th mile post.  
Thence I retrace  
North, on 235th mile.  
Over mountainous land, through scattering timber, and  
sage brush and bunch grass.  
Ascend.

21.00 Top of spur, 400 ft. high, projects SW.  
Descend.

33.00 Ravine, 30 ft. deep, course SW.

## STATE LINE DA BOUNDARY LINE THROUGH T.33 S., R.20 W.

- CHAINS Enter mahogany brush, bears NE. and SW.  
Ascend.
- 45.15 Ridge, 460 ft. high, bears N.75°E., and S.75°W.  
Descend.
- 73.00 Hollow, 400 ft. deep, course W.  
Ascend.
- 73.98 Fall 7 lks. E. of the 234th mile post, which is a pinon  
post, 10 ins. sq., 60 ins. above the ground, marked and  
witnessed as described by the surveyor general.  
The course of this line is therefore N.0° 03' W., and  
the dist. 73.98. chs.  
Land, mountainous.  
Soil, light sandy loam and gravel, stony, 4th rate, on  
a subsoil of clay and loose rock.  
Timber, scattering cedars and pinon pine.  
Undergrowth, sage brush, bunch grass and mahogany.  
April 17: At this cor. I set off 10° 18' N. on the decl.  
arc; and at 12 M. l.m.t., I observe the sun on the mer-  
idian, the resulting lat. is 37° 58'.
- 
- North, on 234th mile.  
Over mountainous land, through undergrowth of sage  
brush and bunch grass.  
Ascend mountain.
- 17.50 Top of ridge, 375 ft. high, bears E. and W.  
Descend.
- 20.20 Ravine, 100 ft. deep, course W. Road in bottom of ravine,  
Bear Lodge to State Line, bears E. and W.  
Ascend.
- 26.20 Point on E. side of mountain, 450 ft. above Ravine.  
Thence along E. side of mountain, on nearly level line.  
The snow on the side of this mountain, being from 10 to  
15 ft. deep, making it impossible to find the 233rd  
mile post, therefore at,
- 28.00 I set a temp. point for future reference, and discontinue  
survey until future date.

April 17.

## CHAINS

July 8: At 8h 5m. a.m.l.t., I set off  $37^{\circ} 58'$  on the lat. arc;  $22^{\circ} 36'N.$  on the decl. arc; and determine a meridian with the solar at the temp. point set April 17, 1911.

Thence I continue

North, on the 233rd mile

Along the E. side of mountain.

Descend, into ravine.

63.89 Fall 1 lk. E. of the 233rd mile post, which is mahogany 4 ins. sq. 5 ft. long, set in a mound of stone 4 ft. base marked and witnessed as described by the surveyor general.

The course of this line is therefore North and the dist. 63.89 chs.

Land mountainous.

Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.

No timber.

Undergrowth of sage brush and bunch grass.

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North, retracing the 233rd mile.

Over mountainous land, through sage brush and bunch grass.

Ascend.

6.00 Low Pass bet. two mountains, 30 ft, above 233rd mile post, bears E and W.

Descend.

41.70 Ravine, 150 ft. deep, course E. Road from Fay to State Line bears E. and W. Ascend.

47.00 Enter dense growth of mahogany and scattering timber Bears E and W.

55.00 Top of spur, 150 ft. above ravine projects E.

Descend.

67.00 Leave mahogany brush and timber bears E. and W.

71.70 Hollow, 325 ft. deep, course E.

Ascend.

74.18 Fall 54 lks. W. of the 232.0625th mile post, which is

RETRACEMENT

UTAH-NEVADA BOUNDARY LINE THROUGH T.33 S., R.20 W.

CHAINS

a pinon post, 12 ins. sq. 48 ins. above the ground, marked and witnessed as described by the surveyor general. The course of this line is therefore N. 0° 25' E., and the dist. 74.18 chs.

Land mountainous.

Soil, light sandy loam and loose rock, 4th rate on a subsoil of clay and loose rock.

Timber scattering cedars and pinon pine on 20.00 chs.

Undergrowth of sage brush, bunch grass and mahogany.

Mahogany brush on 20.00 chs.

July 8: At this mile post, I set off 22° 33' N. on the decl. arc; and at 12h 5m. l.m.t., observe the sun on the meridian, the resulting lat. is 37° 59'.

North, retracing 232 mile.

Over mountainous land, through sage brush and bunch grass

Ascend,

- 6.00 Enter dense mahogany brush, bears E. and W.
- 14.00 Top of spur, 300 ft. high, projects E. Enter scattering mahogany, bears E. and W.  
Descend gradually.
- 22.00 Ravine, 25 ft. deep, course E.  
Ascend over side of Government Peak.
- 40.00 A point, 600 ft. above the 232nd mile post, on the E. side of Government Peak.  
Descend.
- 52.00 Leave mahogany brush, bears E. and W.
- 90.85 Hollow, 1000 ft. below point on E. side of peak, course NE.  
Ascend.
- 91.44 Fall 3 lks. dist. E. of the 231st mile post, which is a pinon post, 8 ins. sq. 60 ins. long, set in a mound of stone, marked and witnessed as described by the surveyor general.  
The course of this line is therefore N. 0° 01' W., and the dist. 91.44 chs.

## RETRACEMENT

UTAH-NEVADA BOUNDARY LINE THROUGH T.32 S., R.20 W.

CHAINS

Land mountainous.

Soil, light sandy loam, and loose rocks, 4th rate, on a subsoil of clay and loose rock.

No timber.

Undergrowth of sage brush, bunch grass and mahogany.

July 8, 1911.

July 10: At 8h. 5m. a.m.l.m.t., I set off  $38^{\circ} 01'$  on the lat. arc;  $22^{\circ} 21'N.$  on the decl. arc; and determine a meridian with the solar at the 231st mile post.

Thence I retrace

North, on 231st mile.

Over mountainous land, through sage brush and bunch grass.

Ascend.

5.00 Spur, 25 ft. above mile post, projects NE.

Descend.

13.50 Ravine, 80 ft. deep, course NE.

Ascend gradually.

30.00 Top of ascent. 40 ft. above ravine.

Descend gradually.

40.60 Ravine, 30 ft. deep, course N.

Ascend .

55.00 Enter scattering timber bears N. and W.

68.00 Top of ridge, 325 ft. high bears W. and SE.

Descend.

80.00 After dilident search, no signs of the 230th mile post are found.

I continue

North, on retracement.

90.90 Hollow, 420 ft. deep, course E.

91.19 W. 17 lks. from this point, I find a cedar post, 12 ins sq., 6 ft. long, set in a mound of earth and stone, marked UTAH on E., 229+70 M on S., NEVADA on W., and L 37 on N., face, Bearing trees have been destroyed.

This post has evidently been set for the 230th mile

RETRACEMENT

UTAH-NEVADA BOUNDARY LINE THROUGH T. 32 S., R. 20 W

post, and marked. The U.S. Mineral Monument No 2 of the State Line mining district, and numerous patent mining claims have been tied to this mile post. The course of this line is N. 0° 07' W., and the dist. 91.19 chs.

Land, mountainous.

Soil, light sandy loam, and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber scattering cedars and pinon pine.

Undergrowth of sage brush and bunch grass.

North, on the 230th mile post.

Over mountainous land, through scattering timber and mahogany, and sage brush and bunch grass:

Ascend.

0.10 Road, bears E. and W.

48.00 Top of ridge, 540 ft. high, bears E. and W.

Descend.

66.00 Ravine, 300 ft. deep, course W.

Ascend.

73.00 Top of spur, 25 ft. high, projects W.

Descend.

79.00 Ravine, 25 ft. deep, course W.

Ascend.

80.00 After diligent search no signs of the 229th mile post are found.

I continue

North, on retracement.

82.25 Top of spur, 75 ft. high, projects W.

Descend.

89.30 Ravine, 140 ft. deep, course W.

Ascend.

104.00 Top of spur, 155 ft. high, projects W.

Descend.

112.10 Ravine, 95 ft. deep, course W.

Ascend.

RETRACEMENT

UTAH-NEVADA BOUNDARY LINE THROUGH T.32 S., R.20 W

CHAINS.

- 118.00 Top of spur, 55 ft. above ravine, projects W.  
Descend.
- 128.90 Hollow, 200 ft. deep, course S.25°W.  
Ascend.
- 145.78 E. 18 lks. dist. I find an old mound, with a stone marked with a cross (+), and old decayed post lying on mound. Was unable to find bearing tree.  
I set a pinon post, 4 ins. sq. 5 ft. long, 2 ft. in the old mound over marked stone.  
The course of this line is therefore N.0° 02'E., and the dist. 145.78 chs.  
Land mountainous.  
Soil, light sandy loam, and loose rock, 4th rate, on a subsoil of clay and loose rock.  
Timber, scattering cedars and pinon pine.  
Undergrowth of sage brush and bunch grass.
- 
- North, retracing the 228th mile.  
Over mountainous land, through scattering timber and sage brush and bunch grass.  
Ascend Slightly.
- 6.00 Top of spur, 10 ft above mile post, projects W.  
Descend.
- 14.75 Ravine, 185 ft. deep, course W.  
Ascend mountain along W. side of ravine.
- 78.89 Fall 74 lks. E. of the 227th mile post, which is a mahogany post, 4 ins. sq. 36 ins. above the ground, marked and witnessed as described by the surveyor general.  
The course of this line is therefore N.0° 32'W., and the dist. 78.89 chs.  
Land, mountainous.  
Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.  
Timber, scattering cedars and pinon pine.

RETRACEMENT

UTAH-NEVADA BOUNDARY LINE THROUGH T. 32 S., R. 20 W.

CHAINS

Undergrowth of sage brush, bunch and scattering mahogany.

July 10, 1911.

July 24: At the 227th mile post, I set off  $38^{\circ} 04'$  on the lat. arc;  $20^{\circ} 03' N.$  on the decl. arc; and at 8h. 6m. a.m.l.m.t., determine a meridian with the solar.

Thence I retrace

North, on 227th mile.

Over mountainous land, through sage brush and bunch grass.

Ascend.

2.00 Top of ascent, 10 ft. above mile post,

Descend.

33.60 Ravine, 250 ft. deep, course,  $N. 30^{\circ} E.$

Ascend.

44.00 Top of spur, 35 ft. high, projects E. Enter scattering timber, beans E. and W.

Descend.

70.32 Choke Cherry Spring Bears W. 180 lks. dist.

71.30 Choke Cherry Creek, 250 ft. below top of spur, stream of fresh water, 6 lks. wide, 2 ins. deep, course E.

Ascend.

78.72 E. 28 lks. of this point, I find a old mound of earth and stone, with a stone marked with a cross (+), in the mound.

The cor. being nearly destroyed, I set a pinon post, 4 ins. sq., 5 ft. long, 2 ft. in the old mound over marked stone, marked UTAH on E., 226 M on S., NEVADA on W., and L 37 on N. face.

The course of this line is therefore  $N. 0^{\circ} 12' E.$ , and the dist. 78.72. chs.

Land, mountainous.

Soil, light sandy loam and loose rock, 4th race, on a subsoil of clay and loose rock.

Timber, scattering cedars and pinon pine, on 34.72 chs.

Undergrowth of sage brush and bunch grass.

## CHAINS

North, retracing the 226th mile.

Over mountainous land, through scattering timber and undergrowth of sage brush and bunch grass.

Ascend.

2.00 Top of spur, 100 ft. high, projects E.

Descend.

26.80 Ravine, 150 ft. deep, course E.

Ascend.

38.00 Apoint, 30 ft. above ravine on E. side of ridge.

Descend.

44.00 Ravine, 25 ft. deep, course S.30°E.

Ascend.

72.00 Top of ridge, 275 ft. high, bears E. and W.

Descend.

79.18 Fall 55 lks. W. of the 225th mile post, which is a pinon post, 4 ins. sq., 36 ins. above the ground, marked and witnessed as described by the surveyor general.

The course of this line is therefore N.0° 24'E., and the dist. 79.18. chs.

Land, mountainous.

Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber scattering cedars and pinon pine.

Undergrowth of sage brush and bunch grass.

North, retracing the 225th mile.

Over mountainous land, through scattering timber and undergrowth of sage brush and bunch grass.

Descend.

13,90 Ravine, 175 ft. deep, course W.

Ascend.

23.00 Top of spur, 135 ft. high, projects W.

Descend.

42.20 Ravine, 125 ft. deep, course W.

Ascend.

56.75 Top of spur, 150 ft. high, projects W.

RETRACEMENT

UTAH-NEVADA BOUNDARY LINE THROUGH T.31 S., R.20 W.

CHAINS	
66.55	<p>Descend.</p> <p>Ravine, 240 ft. deep, course S.75°W.</p> <p>Ascend.</p>
74.75	<p>Top of spur, 50 ft. high, projects W.</p> <p>Descend.</p>
79.05	<p>Fall 74 lks. W. of the 224th mile post, which is a pinon post, 4 ins. sq., 48 ins. above the ground, marked and witnessed as described by the surveyor general. The course of this line is therefore N.0° 32'E., and the dist. 79.05 chs.</p> <p>Land, mountainous .</p> <p>Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.</p> <p>Timber, scattering cedars and pinon pine.</p> <p>Undergrowth, sage brush and bunch grass.</p> <p style="text-align: right;">July 24, 1911:</p>
	<p>July 25: At 8h.6m. a.m.l.m.t.; I set off 38°07' on the lat. arc; 19°50' N. on the decl arc, and determine a meridian with the solar. Thence I run North, retracing the 224th mile.</p>
	<p>Over mountainous land, through heavy timber and scattering sage brush and bunch grass.</p>
	<p>Descend.</p>
1.00	<p>Ravine, 75 ft. deep, course W.</p> <p>Ascend.</p>
21.00	<p>Top of spur, 140 ft. high, projects W.</p> <p>Descend.</p>
36.00	<p>Ravine, 100 ft. deep, course W.</p> <p>Ascend peak.</p>
78.89	<p>Top of peak, 650 ft. above ravine.</p> <p>Fall 9 lks. E. of the 223rd mile post, which is a pinon post, 4 ins. sq., 36 ins. above the mound, set in a mound of stone, marked and witnessed as described by the surveyor general. The course of this line is therefore N.0° 04'W., and the dist. 78.89 chs.</p> <p>Land, mountainous.</p> <p>Soil, light sandy loam and rocks, 4 th rate, on a</p>

RETRACEMENT

UTAH-MEVADA BOUNDARY LINE THROUGH T.31 S.,R.20 W.

CHAINS

subsoil of clay and loose rock.

Timber, heavy cedars and pinon pine.

Undergrowth, scattering sagebrush and bunch grass.

July 25: At this mile post I set off  $19^{\circ}48'N.$  on the decl arc; and at 12h.6m.1.m.t., observe the sun on the meridian, the resulting lat. is  $38^{\circ}07'.$

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North, retracing the 223rd mile.

Over mountainous land, through undergrowth of sagebrush and bunch grass.

Descend.

38.10 Ravine, 680 ft. below top of peak, course E.

Ascend. Enter scattering timber, bears E. and W.

52.00 Top of spur, 175 ft. high, projects E.

Descend.

79.10 Ravine, 250 ft. deep, course  $S.75^{\circ}E.$

Ascend.

80.00 After diligent search no signs of the old 222nd mile post are found.

July 25, 1911.

July 26: At 8h.6m.a.m., 1.m.t., I set off  $37^{\circ}08'$  on the lat. arc;  $19^{\circ}37'N.$  on the decl. arc, and determine a meridian with the solar.

Thence I continue

North, retracing the 222nd mile, with continuous measurement.

Over mountainous land, through heavy timber and scattering undergrowth of sagebrush and bunch grass. Ascend.

82.75 Top of spur, 30 ft. high, projects E. Descend.

87.10 Ravine, 25 ft. deep, course SE. Ascend.

92.00 Top of ridge, 65 ft. high, bears E. and W. Descend.

95.60 Ravine, 50 ft. deep, course  $S.75^{\circ}E.$  Ascend.

103.00 Top of ridge, 135 ft. high, bears E. and W. Descend.

110.00 Leave timber, bears NE. and SW.

142.60 Hollow, 536 ft. deep, course E. Ascend.

146.14 Fall 54 lks. W. of the 221st mile post, which is an old

RETRACEMENT

UTAH-MEVADA BOUNDARY LINE THROUGH T.31 S., R.20 W.

CHAINS

mound of earth with a stone in the mound marked with a cross (+). The post has been destroyed, therefore I set a pinon post, 4 ins. sq., 5 ft. long, 2 ft. in the old mound over the marked stone.

The course of this line is therefore N.0°13'E., and the dist. 146.14 chs.

From this mile post a spring of fresh water bears S.86°54'E., 7.00 chs. dist.

July 26: At this mile post I set off 19°35'N. on the decl. arc; and at 12h.6m.1.m.t., observe the sun on the meridian, the resulting lat. is 38°08'.

---

North, retracing the 221st mile.

Over mountainous land, through scattering timber and undergrowth of sagebrush and bunch grass.

Ascend.

24.85 Top of ridge, low divide, 75 ft. high, bears E. and W.  
Descend.

29.66 Ravine, 50 ft. deep, course N.75°E.  
Ascend.

39.86 Top of spur, 70 ft. high, projects E.  
Descend.

64.86 Ravine, 350 ft. deep, course N.60°E.  
Ascend.

79.11 Fall 23 lks W. of the 220th mile post, which is a cedar post, 4 ins. sq., 48 ins. above the ground, marked and witnessed as described by the Surveyor General. The course of this line is therefore N.0°10'E. and dist. 79.11 chs.

Land, mountainous.

Soil, light sandy loam and loose rock; 4th rate, on a

CHAINS

subsoil of clay and loose rock.

Timber scattering cedars and pinon pine.

Undergrowth of sage brush and bunch grass.

July 26, 1911.

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For general description see notes of Ts. 31-32-33 and 34  
S., Rs. 20 W.

*Ralph Smith*  
U.S. Transitman.

**Volume**

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FINAL OATH OF UNITED STATES SURVEYOR.

I, \_\_\_\_\_, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for \_\_\_\_\_ bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 191 \_\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_

For final oath of transitman see book "V" T. 31 S., R. 19 W.

\_\_\_\_\_ of the \_\_\_\_\_ Meridian, in the State of \_\_\_\_\_, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 191 \_\_\_\_\_

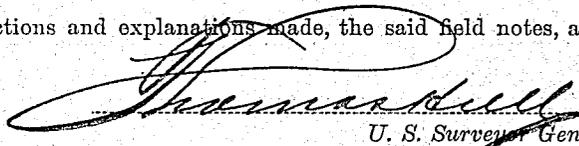


APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,  
Salt Lake City, Utah, Feb. 26, 1914.

The foregoing field notes of the survey of \_\_\_\_\_ retracement of the Utah-Nevada Boundary line through Townships 31, 32, 33, and 34 South, Range No. 20 West of the Salt Lake Base and Meridian, Utah,

executed by \_\_\_\_\_ Ralph Gentry \_\_\_\_\_ under his special instructions dated \_\_\_\_\_ August 6 \_\_\_\_\_, 1910, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

  
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.

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L.

BOOK A-390

# FIELD NOTES

OF THE SURVEY OF THE

SUBDIVISION

OF

TOWNSHIP No. 34 SOUTH, RANGE No. 20 WEST.

Of the Salt Lake Base and Meridian,

In the State of Utah

EXECUTED BY

Ralph Gentry

Transitman

In the capacity of U. S. Surveyor, under instructions dated August 6, 1910,

issued by the United States Surveyor General to govern surveys included in

Group No. 3, which were approved by the Commissioner of the General Land

Office, Sept. 12, 1910, pursuant to authority contained in the Act of

Congress dated 1910

Survey commenced April 9, 1911

Survey completed April 14, 1911

Index - 13-04-00 ✓  
Obs - 00-13-63 ✓

# INDEX DIAGRAM.

Township No. 34 SOUTH....., Range No. 20 WEST.....

6	5	4	3	2	18	1
					17	16
7	8	9	10	11	15	12
					14	12
18	17	16	15	14	11	13
					10	9
19	20	21	22	23	8	24
					7	6
30	29	28	27	26	5	25
					4	3
31	32	33	34	35	2	36

CHAINS

Survey commenced April 9, 1911, and executed with the instrument described in book "J", of this survey.

I examine the adjustments of the transit, find them correct, then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At the cor. of secs. 35 and 36, on the S. bdy. of Tp. heretofore described, in approximate latitude  $37^{\circ} 48' 37''$  N, longitude  $113^{\circ} 59' 45''$  W., I set off  $37^{\circ} 49'$  on the lat. arc;  $7^{\circ} 27' N.$  on the decl. arc; and at 4h 2m, p.m.l.m.t., determine a meridian with the solar and mark a point thereof on a stake set firmly in the ground, 5 chs. N. of the cor.

At 6h 14m, p.m.l.m.t., I observe Polaris at western elongation, in accordance with the Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station.

April 9, 1911.

---

April 10, At 7h 30m, a.m.l.m.t., I lay off the azimuth of Polaris,  $1^{\circ} 29'$  to the east, and mark the meridian thus determined, by driving a tack in the stake set last evening, on which the meridian falls 0.2 ins.

to the west of the mark determined by the solar.

At 8h 2m, a.m.l.m.t., I set off  $37^{\circ} 49'$  on the lat. arc;  $7^{\circ} 42' N.$  on the decl. arc; and mark a point in the meridian determined with the solar, on the stake already set 5 chs. N. of my station; this mark falls 0.1 ins. west of the meridian established by the Polaris observation.

The solar apparatus by p.m. and a.m. observations defines positions for meridians, respectively about  $0' 10''$  east and  $0' 5''$  west, of the meridian established by Polaris observations; therefore I conclude that the adjustments of the transit are satisfactory.

SUBDIVISION OF T.34 S.,R.20 W.

CHAINS

The magnetic bearing of the true meridian at 8h 30m, a.m., is N.16°W, the angle thus determined gives the mag. decl. 16°E.

Thence I run

North, on sectional guide meridian, bet. secs. 35 and 36. Over rolling land, through scattering timber, and undergrowth of sage brush and bunch grass.

Descend.

2.40 Wash, in ravine, 20 ft. below sec. cor., 6 lks. wide, 1 ft. deep, course E.

Ascend.

6.50 Top of spur, 30 ft. high, projects E.

Descend.

16.50 Wash in ravine, 35 lks. wide, 5 ft. deep, course E. Over level land across bottom of ravine,

21.20 Wash, 10 lks. wide, 4 ft. deep, course E.

Ascend.

28.00 Top of low rolling ridge, 45 ft. high, bears N.75°W and S.75°E.

Descend gradually over gently rolling land.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 35 on W. half, and S 36 on E. half; from which

A cedar, 16 ins. dia., bears N.69°30'W., 89 lks. dist., marked  $\frac{1}{4}$  S 35 B T.

A cedar, 10 ins. dia., bears N.71° 15'E., 30 lks. dist., marked  $\frac{1}{4}$  S 36 B T.

45.15 Wash, 10 lks. wide, 1 ft. deep, course E.

56.60 Wash, 10 lks. wide, 1 ft. deep, course SE.

78.85 Wash, 6 lks. wide, 1 ft. deep, course E.

80.00 Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground, for cor. of secs. 25-26-35 and 36, marked on brass cap

T 34 S S 26 in NW.

R 20 W S 25 in NE.

S 36 in SE., and

S 35 in SW., quadrant; from which

CHAINS

A cedar, 10 ins. diam., bears N. 57° 15' E., 50 lks. dist., marked T 34 S R 20 W S 25 B T.

A cedar, 6 ins. diam., bears S. 28° E., 49 lks. dist., marked T 34 S R 20 W S 36 B T.

A cedar, 8 ins. diam., bears S. 43° 20' W., 97 lks. dist., marked T 34 S R 20 W S 35 B T.

A cedar, 6 ins. diam., bears N. 52° 10' W., 92 lks. dist., marked T 34 S R 20 W S 26 B T.

Land, rolling.

Soil, light sandy loam, clay and gravel, stony, 3rd and 4th rate, 8 to 12 ins. deep, on a subsoil of damp stiff clay and loose rock.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush and bunch grass.

East, on a random line, bet. secs. 25 and 36

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.28 Intersect E. bdy. of Tp. 32 lks. N. of the cor. of secs. 25-30-31 and 36, heretofore described.

Thence I run

N. 89° 46' W., on a true line bet. secs. 25 and 36.

Over mountainous land, through scattering timber and undergrowth of sage brush and bunch grass.

Descend.

25.50 Hollow, 150 ft. below sec. cor, course SW.

Ascend.

31.65 Old road, bears SW. and NE.

36.00 Top of ascent, on SE. end of spur, 30 ft. high,

Descend.

39.10 Ravine, 50 ft. deep, fresh water in bottom, 6 lks. wide 2 ins. deep, course S. 30° E.

Thence on over nearly level bottom land.

40.14 Set an iron post, 3 ft. long, 1-in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 25 on N. half, and S 36 on S. half, dig pits 18 x 18 x 12 ins. E. and W. of post, 3 ft. dist.; and raise a mound of

SUBDIVISION OF T.34 S.,R.20 W.

CHAINS

- earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.
- 40.95 Road, from Modena to Gold Springs, bears N.30°W. and S.30°E.
- 47.00 Ascend, from ravine, bears N.30°W. and S.30°E.
- 56.00 Leave ravine, 50 ft. ft. above bottom.  
Thence over rolling land.
- 65.70 Ravine, 20 ft. deep, 50 lks. wide, course, SE.
- 80.28 The cor. of secs. 25-26-35 and 36.  
Land, mountainous and rolling.  
Soil, light sandy loam and clay, stony, 3rd and 4th rate  
8 to 10 ins. deep on a subsoil of clay and loose rock.  
Timber, scattering cedars and pinon pine.  
Undergrowth, sage brush and bunch grass.

- 
- West, bet, secs. 26 and 35, on true line  
Over rolling land, through scattering timber, and undergrowth of sage brush and bunch grass.
- 27.24 Intersect Utah-Nevada bdy., 29 lks. S.2°39'W., of the 244th mile post, heretofore described.  
Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 26 and 35, marked on brass cap  
UTAH on E., and  
CC NEVADA on W. half.  
T 34 S S 26 in NE., and  
R 20 W S 35 in SE., quadrant; from which  
A cedar, 8 ins. dia., bears N.43°45'E., 69 lks. dist., marked T 34 S R 20 W S 26 B T.  
A cedar, 6 ins. dia., bears S.19°10'E., 39 lks. dist., marked T 34 S R 20 W S 35 B T.  
Land, rolling.  
Soil, light sandy loam and gravel, 3rd rate, 8 to 12 ins. deep on a subsoil of damp stiff clay and loose rock.  
Timber, scattering cedars and pinon pine.  
Undergrowth, sage brush and bunch grass.  
April 10: At this cor. I set off 7° 46' N. on the decl.

## CHAINS

arc; and at 12h 2m, <sup>P.m.</sup>l.m.t., I observe the sun on the meridian, the resulting lat. is 37° 49'.

---

North, on sectional guide meridian bet. secs. 25 and 26. Over rolling land, through scattering timber and undergrowth of sage brush and bunch grass.

- 8.80 Ravine, 15 ft. deep, 50 lks. wide, course S.75°E.
- 30.45 Ravine, 20 ft. deep, 60 lks wide, course E.
- 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 26 on W half, and S 25 on E. half; from which
- A cedar, 6 ins. dia., bears N.22°E., 122 lks. dist., marked  $\frac{1}{4}$  S 25 B T.
- A cedar, 8 ins. dia., bears S, 82°45'W., 228 lks. dist., marked  $\frac{1}{4}$  S 26 B T.
- 44.75 Descend into ravine, bears NW. and SE.
- 46.00 Ft. of decent, 20 ft. below top. Leave timber bears NW. Thence over nearly level land in bottom of ravine.
- 52.00 Road, from Modena to Gold Springs, bears NW. and SE.
- 68.00 Ascend, from ravine, bears NW. and SE.
- 69.00 Enter scattering timber Bears NW. and SE
- 74.00 Leave ravine, 175 ft. above bottom. Thence along E. slope of ridge, on nearly level line.
- 80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for the cor. of secs. 23-24-25 and 26, marked on brass cap.
- T 34 S S 23 in NW.
- R. 20 W S 24 in NE.
- S 25 in SE., and
- S 26 in SW., quadrant; from which
- A pinon, 12 ins. dia., bears N.10°E., 138 lks. dist., marked T 34 S R 20 W S 24 B T.
- A cedar, 8 ins. dia., bears S.38°20'E., 219 lks. dist., marked T 34 S R 20 W S 25 B T.
- A cedar, 3 ins. dia., bears S.72°10'W., 69 lks. dist., marked T 34 S R 20 W. S 26 B T.

CHAINS

A cedar, 6 ins. dia., bears N.60°35'W., 49 lks.  
dist., marked T 34 S R 20 W S 23 B T.

Land, rolling.

Soil, light sandy loam and gravel, stony 3rd rate, 8 to 12 ins. deep on a subsoil of clay and loose rock.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush and bunch grass.

S.89°46'E., on a random line bet, secs. 24 and 25.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.46 Intersect E. bdy. of Tp. 52 lks. N. of the cor. of secs. 19-24-25 and 30, heretofore described.

I destroy all marks pertaining to secs. 24 and 25.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins in the ground, for closing cor. of secs. 24 and 25, marked on brass cap

T 34 S on N., and

S 19 CC S 30 R 19 W on E. half.

S 25 R 20 W in SW., and

S 24 in NW., quadrant; from which

A cedar, 10 ins. dia., bears S.46°30'W., 50 lks.  
dist., marked T 34 S R 20 W S 25 B T.

A cedar, 8 ins. dia., bears N.41°05'W., 90 lks.  
dist., marked T 34 S R 20 W S 24 B T.

Thence I run

N.89°46'W., on a true line bet. secs. 24 and 25.

Over mountainous land, through scattering timber and undergrowth of sage brush and bunch grass.

Descend.

3.30 Old road, bears N.30°E. and S.30°W.

10.75 Hollow, 25 ft. below sec. cor., course S.10°W.

Ascend.

26.50 Top of rocky spur, 200 ft. high, projects S.

Descend.

40.23 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 24 on

SUBDIVISION OF T.34 S., R.20 W.

CHAINS

- N. half, and S 25 on S. half, raise a mound of stone  $2\frac{1}{2}$  ft. base, 2 ft. high N. of cor. Pits impracticable.
- 49.10 Ravine, 200 ft. below top of spur, course S.  
Ascend.
- 55.00 Top of ascent, 25 ft. above ravine, bears N. and S.  
Descend.
- 59.60 Ravine, 25 ft. deep, course S.  
Ascend.
- 80.46 The cor. of secs. 23-24-25 and 26.  
Land, mountainous.  
Soil, light sandy loam and loose rock, 4th rate, On a subsoil of clay and loose rock.  
Timber, scattering cedars and pinon pine?  
Undergrowth of sage brush and bunch grass.
- April 10, 1911.
- 
- April 11: At 8h 1m., a.m.l.m.t., I set off  $37^{\circ} 50'$  on the lat. arc;  $8^{\circ} 05'$  N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 23-24-25 and 26.  
Thence I run  
West, bet. secs. 23 and 26, on true line,  
Over rolling hills, through scattering timber and undergrowth of sage brush and bunch grass.  
Ascend.
- 4.50 Top of hill, 25 ft. above sec. cor., bears N. and S.  
Descend into hollow,
- 8.25 Ft. of descent, 75 ft. below top of hill, bears N. and S.  
Leave timber, bears N. and S.  
Thence over nearly level land, across hollow.
- 14.50 Road, from Modena to Gold Springs, bears N. and S.
- 16.65 Road, from Modena to Pioche, bears NW. and SE.
- 28.00 Ascend, from hollow, bears NW. and SE. Enter scattering timber, bears NW. and SE.
- 33 05 Intersect Utah-Nevada bdy. 1.54 chs. N.  $0^{\circ} 31' E.$ , of the 243rd mile post, heretofore described.

## CHAINS

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 23 and 26, marked on brass cap

UTAH on E., half, and

CC NEVADA on W. half.

T 34 S S 23 in NE., and

R 20 W S 26 in SE., quadrant; from which

A cedar, 8 ins. dia., bears N.64°30'E., 5 lks. dist., marked T 34 S R 20 W S 23 B T.

A cedar, 8 ins. dia., bears S.81°30'E., 4 lks. dist., marked T 34 S R 20 W S 26 B T.

Land, rolling hills and level bottom land.

Soil, light sandy loam and gravel, 2nd and 3rd. rate

Timber, scattering cedars and pinon pine.

Undergrowth of sage brush and bunch grass.

---

North, on sectional guide meridian, bet., secs. 23 and 24. Over rolling hills, through scattering timber and undergrowth of sage brush and bunch grass.

Decend slightly, along E. side of rolling ridge.

35.90 Ravine, 40 ft. below sec. cor., course SE.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 23 on W. half and S 24 on E. half; from which

A cedar, 10 ins. dia., bears N.72°50'W., 60 lks. dist., marked  $\frac{1}{4}$  S 23 B T.

A pinon, 6 ins. dia., bears S.54°35'E., 100 lks. dist., marked  $\frac{1}{4}$  S 24 B T.

42.00 Top of ascent, 25 ft. above ravine.

Thence on nearly level land, along E. side of low ridge.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 13-14-23 and 24, marked on brass cap

T 34 S S 14 in NW.

R 20 W S 13 in NE.

CHAINS

S 24 in SE., and S 23 in SW., quadrant; from which  
 A cedar, 8 ins. dia., bears N. 47° 15' E., 91 lks.  
 dist., marked T 34 S R 20 W S 13 B T.

A cedar, 10 ins. dia., bears S. 38° 50' E., 117 lks.  
 dist., marked T 34 S R 20 W S 24 B T.

A cedar, 6 ins. dia., bears S. 34° 15' W., 47 lks.  
 dist., marked T 34 S R 20 W S 23 B T.

A cedar, 10 ins. dia., bears N. 62° 10' W., 17 lks.  
 dist., marked T 34 S R 20 W S 14 B T.

Land rolling hills.

Soil, light sandy loam, gravel and loose rock, 3rd. and  
 4th rate, on a subsoil of clay and loose rock.

Timber, scattering cedars and pinon pine.

Undergrowth of sage brush and bunch grass.

April 11: At this cor. I set off 8° 08' N. on the decl.  
 arc; and 12h <sup>p.m.</sup> l.m.t., observe the sun on the meridian.  
 The resulting lat. is 37° 51'.

S. 89° 46' E., bet. secs. 13 and 24, on true line,

Over rolling hills, through scattering timber and under-  
 growth of sage brush and bunch grass.

Descend.

3.20 Ravine 15 ft. below sec. cor., course S.

Ascend.

11.00 Top of spur, 115 ft. above ravine, projects S.

Descend.

26.00 Ravine, 50 ft. deep, course, S.

Ascend.

31.50 Top of spur, 30 ft. high, projects SE.

Descend.

37.95 Ravine, 90 ft. deep, course S.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the  
 ground, for  $\frac{1}{4}$  sec. cor, marked on brass cap  $\frac{1}{4}$  S 13 on  
 N. half, and S 24 on S. half, from which

A cedar, 10 ins. dia., bears N. 65° 30' E., 20 lks. dist.,

SUBDIVISION OF T.34 S., R.20 W.

CHAINS

marked  $\frac{1}{4}$  S 13 B T.

A cedar, 6 ins. dia., bears S.12°10'W., 29 lks. dist.,

marked  $\frac{1}{4}$  S 24 B T.

41.00 Top of spur, 40 ft. high, projects S.  
Descend,

59.70 Ravine, 30 ft. deep, course, S.  
Ascend slightly.

61.00 Top of ascent, 10 ft. above ravine,  
Descend .

63.80 Hollow, 75 ft. deep, course S.15°W.  
Ascend.

80.82 Intersect E. bdy. of Tp. 44 lks. N. of the cor. of secs.  
13-18-19 and 24, heretofore described.

I destroy all marks pertaining to secs. 13 and 24, and  
Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the  
ground, for closing cor. of secs. 13 and 24, marked on  
brass cap.

T 34 S on N. half,

CC S 18 S 19 R 19 W on E. half,

S 13 in NW., and

S 24 R 20 W in SW., quadrant, from which

A cedar, 10 ins. dia., bears S.30°15'W., 8 lks.  
dist., marked T 34 S R 20 W S 24 B T.

A cedar, 10 ins. dia., bears N.60°W., 11 lks.  
dist., marked T 34 S R 20 W S 13 B T.

Land, rolling hills.

Soil, light sandy loam and gravel, 4th rate, on a  
subsoil of clay and loose rock.

Timber, scattering cedars and pinon pine.

Undergrowth of sage brush and bunch grass.

---

West, bet. secs. 14 and 23, on true line,

Over rolling hills, through scattering timber and under-  
growth of sage brush and bunch grass .

Ascend.

4.10 Top of hill, 30 ft. above sec. cor., bears N. and S,

## CHAINS

Descend.

8.85 Hollow, 100 ft. deep, bears N. and S.

Thence over level land across hollow.

12.25 Road, from Modena to Gold Springs, bears N. and S.

14.20 Ascend from hollow.

29.00 Top of ridge, 100 ft. high, bears N. and S.

Thence over top of ridge.

32.39 Intersect Utah-Nevada bdy., 1.83 chs. N.1°22'W., of the 242nd mile post heretofore described.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 14 and 23, marked on brass cap

UTAH on E. half,

CC NEVADA on W. half,

T 34 S S 14 in NE., and

R 20 W S 23 in SE., quadrant; from which

A cedar, 6 ins. dia., bears N.49°45'E., 89 lks.

dist., marked T 34 S R 20 W S 14 B T.

A cedar, 10 ins. dia., bears S.72°E., 74 lks.

dist., marked T 34 S R 20 W S 23 B T.

Land, rolling hills.

Soil, light sandy loam, gravel and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber scattering cedars and pinon pine.

Undergrowth of sage brush and bunch grass.

April 11, 1911.

---

April 12: At 8h 1m., a.m.l.m.t., I set off 37°51' on the lat. arc; 8°<sup>√</sup>27'N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 13-14-23 and 24.

Thence I run

North on sectional guide meridian, bet. secs. 13 and 14.

Over rolling hills, through scattering timber, and undergrowth of sage brush and bunch grass.

Descend slightly, along E. side of ridge.

CHAINS

19.00 Ravine, 30 ft. deep, course SE.  
Ascend.

28.00 Top of spur, 50 ft. high, projects SE.  
Descend gradually.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 14 on W. half, and S 13 on E. half; from which  
A pinon, 6 ins. dia., bears N.54°30'E., 67 lks. dist., marked  $\frac{1}{4}$  S 13 B T.  
A cedar, 8 ins. dia., bears S.73°15'W., 30 lks. dist., marked  $\frac{1}{4}$  S 14 B T.

63.50 Ravine, 25 ft. deep course SE. Ascend.

80.00 On top of ridge bears NE. and SW.

88.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor of secs. 11-12-13 and 14, marked on brass cap  
T 34 S S 11 in NW.  
R 20 W S 12 in NE.  
S 13 in SE., and  
S 14 in SW., quadrant: from which  
A cedar, 6 ins. dia., bears N.31°45'E., 17 lks. dist., marked T 34 S R 20 W S 12 B T.  
A cedar, 6 ins. dia., bears S.49°15'E., 146 lks. dist., marked T 34 S R 20 W S 13 B T.  
A pinon, 6 ins. dia., bears S.78°25'W., 53 lks. dist., marked T 34 S R 20 W S 14 B T.  
A cedar, 8 ins. dia., bears N.72°30'W., 39 lks. dist., marked T 34 S R 20 W S 11 B T.

Land, rolling hills.  
Soil, light sandy loam, gravel and loose rock, 4th rate, on a subsoil of clay and loose rock.  
Timber, scattering cedars and pinon pine.  
Undergrowth of sage brush and bunch grass.

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S, 89° 46'E., bet. secs, 12 and 13; on true line,

SUBDIVISION OF T.34 S.,R.20 W.

CHAINS

Over rolling hills, through scattering timber and undergrowth of sage brush and bunch grass.

Descend.

9.80 Ravine, 80 ft. deep, course S.

Ascend.

19.00 Top of ridge, 125 ft. high, bears N. and S.

Descend,

40.00 Wash, at ft. of ridge, 165 ft. below top, 20 lks. wide, 2 ft. deep, course SE. Enter heavy timber Bears N. and S

Thence over rolling land . Point for  $\frac{1}{4}$  sec.cor., cor. not set.

41.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground , for witness cor. to  $\frac{1}{4}$  sec. cor., marked on brass cap T 34 S R 20 W S 12 WC  $\frac{1}{4}$  on N. half, and S 13 on S. half: from which

A cedar, 6 ins. dia., bears N.25°10'E., 66 lks. dist., marked WC  $\frac{1}{4}$  S 12 B T.

A cedar, 8 ins. dia., bears S.44°15'W., 70 lks., dist., marked WC  $\frac{1}{4}$  S 13 B T.

45.70 Wash, 8 lks. wide, 1 ft. deep, course S.

66.50 Wash, 20 lks. wide, 2 ft. deep, course S.

77.90 Wash, 10 lks. wide, 1 ft. deep, course NE.

81.10 Intersect E. bdy. of Tp., 63 lks. N.0°20'E., of the cor. of secs. 7-12-13 and 18, heretofore described.

I destroy all marks pertaining to secs. 12 and 13 on old cor.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 12 and 13, marked on brass cap

T 34 S on N., half,

CC S 7 S 18 R 19 W on E. half,

S 12 in NW., and

S 13 R 20 W in SW., quadrant; from which

A pinon, 10 ins. dia., bears S.30°30'W., 41 lks. dist., marked T 34 S R 20 W S 13 B T.

A cedar, 10 ins. dia., bears N.15°W., 65 lks. dist., marked T 34 S R 20 W S 12 B T.

Land, rolling hills.

## CHAINS

Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber, cedars and pinon pine.

Undergrowth, sage brush and bunch grass.

West, bet. sec. 11 and 14, on true line,

Over mountainous land, through scattering timber, and undergrowth of sage brush and bunch grass.

Descend.

5.00 Ravine, 60 ft. deep, course N.

Ascend.

9.00 Top of spur, 50 ft. high, projects N.

Descend.

19.55 Road, from Modena, to Gold Springs, bears N. and S.

20.75 Hollow, 160-ft. deep, running water in bottom, 6 lks. wide, 2 ins. deep, course S.

Ascend.

34.21 Intersect Utah-Nevada bdy. 2.38 chs. N.0°25'W., of the 241st. mile post, heretofore described.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 11 and 14, marked on brass cap

UTAH on E., half,

CC NEVADA on W. half.

T 34 S S 11 in NE., and

R 20 W S 14 in SE., quadrant; from which

A cedar, 6 ins. dia., bears N.56°05'E., 82 lks. dist., marked T 34 S R 20 W S 11 B T.

A pinon, 14 ins. dia., bears S.17°30'E., 57 lks. dist., marked T 34 S R 20 W S 14 B T.

Land, mountainous.

Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber, scattering cedars and pinon pine.

Undergrowth, sage brush and bunch grass.

CHAINS

April 13: At 8h lm., a.m.l.m.t., I set off  $37^{\circ}52'$  on the lat. arc;  $8^{\circ}48'W.$  on the decl. arc; and determine a meridian with the solar at the cor. of secs. 11-12-13 and 14.

Thence I run

North on sectional guide meridian bet. secs. 11 and 12. Over mountainous land, through scattering timber, and undergrowth of sage brush and bunch grass.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 11 on W. half, and S 12 on E. half; from which

A pinon, 10 ins. dia., bears  $S.63^{\circ}E.$ , 68 lks. dist., marked  $\frac{1}{4}$  S 12 B T.

A cedar, 6 ins. dia., bears  $S.56^{\circ}W.$ , 101 lks. dist., marked  $\frac{1}{4}$  S 11 B T.

43.25 Hollow, 150 ft. deep, fresh water in bottom, 6 lks. wide, 2 ins. deep, course S. Enter heavy timber brs. E. and W. Ascend.

43.75 Road, from Modena to Gold Springs, bears N. and S.

61.00 Top of spur, 160 ft. high, projects E.

Descend.

67.50 Ravine, 25 ft. deep, course E.

Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for cor. of secs. 1-2-11-and12, marked on brass cap

T 34 S S 2 in NW.

R 20 W S 1 in NE.

S 12 in SE., and

S 11 in SW., quadrant; from which

A cedar, 5 ins. dia., bears  $N.49^{\circ}05'E.$ , 5 lks. dist., marked T 34 S R 20 W S 1 B T.

A cedar, 6 ins. dia., bears  $S.56^{\circ}25'E.$ , 27 lks. dist., marked T 34 S R 20 W S 12 B T.

A cedar, 8 ins. dia., bears  $S.10^{\circ}50'W.$ , 22 lks.

## CHAINS

dist., marked T 34 S R 20 W S 11 B T.

A pinon, 12 ins. dia., bears N. 15° 20' W., 83 lks.

dist., marked T 34 S R 20 W S 2 B T.

Land, mountainous.

Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber cedars and pinon pine.

Undergrowth of sage brush and bunch grass.

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S. 89° 46' E., bet. secs. 1 and 12, on true line.

Over mountainous land, through heavy timber and scattering undergrowth of sage brush and bunch grass,

Descend.

2.60 Ravine, 30 ft. below sec. cor., course S.

Ascend.

7.50 Top of spur, 80 ft. high, projects S.

Descend.

15.50 Hollow, 100 ft. deep, running water in bottom 6 lks. wide  
2 ins. deep, course S.

Ascend.

17.68 Road, from Modena to Gold Springs, bears N. and S.

32.50 Top of ridge, 200 ft. high, bears N. and S.

Descend.

39.50 Ravine, 75 ft. deep, course SE.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor. marked on brass cap  $\frac{1}{4}$  S 1 on N. half, and S 12 on S. half; from which

A cedar, 10 ins. dia., bears N. 1° 30' W., 38 lks. dist., marked  $\frac{1}{4}$  S 1 B T,

A pinon, 12 ins. dia., bears S. 1° E., 11 lks. dist., marked  $\frac{1}{4}$  S 12 B T.

April 13: At this cor. I set off 8° 52' N. on the decl. arc; and at 12h <sup>p.m.</sup> 1.m.t., observe the sun on the meridian. The resulting lat. is 37° 53'.

45.00 Top of spur, 30 ft high, projects S.

CHAINS

Descend.

47.58 Power line, from Modena to Gold Springs, bears N.30°W., and S.30°E.

55.90 Ravine, 40 ft. deep, course SE.

Ascend.

65.50 Top of spur, 40 ft. high, projects S.

Descend.

70.30 Ravine, 30 ft. deep, course S,

Ascend.

81.78 Intersect, E. bdy. of Tp., 1.04 chs. N.0°24'E., of the cor of secs. 1-6-7 and 12, heretofore described.

I destroy the marks on old cor. pertaining to s. c. 1 and 12.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground, for closing cor. of secs. 1 and 12, marked on brass cap

T 34 S on N. half,

CC S 6 S 7 R19W on E. half.

S 1 in NW., and

S 12 R 20 W in SW., quadrant; from which

A pinon, 6 ins. dia., bears S.61°30'W., 60 lks. dist., marked T 34 S R 20 W S 12 B T.

A pinon. 10 ins. dia., bears N.40°30'W., 18 lks. dist., marked T 34 S R 20 W S 1 B T.

Land, mountainous.

Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber, cedars and pinon pine.

Undergrowth, scattering sage brush and bunch grass.

---

West, bet . secs. 2 and 11, on true line.

Over mountainous land, through timber and scattering undergrowth of sage brush and bunch grass.

Ascend.

7.00 Top of ridge, 115 ft. high, bears N. and S.

Descend.

CHAINS

14.00 Ravine, 125 ft. deep. course S.  
Ascend.

24.00 Top of ridge, 165 ft. high, bears N. and S.  
Descend.

34.72 Intersect Utah-Nevada bdy., 3.20 chs. N.1°05'E., of the 240th mile post heretofore described.  
Set an iron post, 3 ft. long, 2 in. dia., 24 ins. in the ground, for closing cor. of secs. 2 and 11, marked on brass cap  
UTAH on E., half,  
CC NEVADA on W half.  
T 34 S S 2 in NE., and  
R 20 W S 11 in SE., quadrant. from which  
A cedar, 10 ins. dia., bears N.38°45'E., 26 lks. dist., marked T 34 S R 20 W S 2 B T.  
A pinon, 8 ins. dia., bears S.89°E., 40 lks. dist., marked T 34 S R 20 W S 11 B T.  
Land, mountainous.  
Soil, light sandy loam and loose rock, 4th rate. on a subsoil of clay and loose rock.  
Timber, cedars and pinon pine.  
Undergrowth, scattering sage brush and bunch grass.

April 13, 1911.

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April 14: At 8<sup>h</sup> 01<sup>m</sup> a.m. m.l.m.t., I set off 37° 53' on the lat. arc; 9° 10' N. on the decl. arc; and determine a meridian with the solar, at the cor. of secs. 1-2-11 and 12.

Thence I run  
North on sectional guide meridian bet, secs 1 and 2.  
Over mountainous land, through timber and scattering undergrowth of sage brush and bunch grass.

Ascend.

16.00 Top of spur, 145 ft. above sec. cor, projects SE.

Descend.

24.00 Ravine, 25 ft, deep, course E.

CHAINS

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground, for  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 2 on W. half, and S 1 on E. half; from which

A cedar, 10 ins. dia., bears S.46°30'E., 17 lks. dist. marked  $\frac{1}{4}$  S 1 B T.

A cedar, 6 ins. dia., bears S.82°30'W., 8 lks. dist., marked  $\frac{1}{4}$  S 2 B T.

51.75 C.O.Newells house bears S.56°35'E.

60.75 C.O.Newells house bears S.44°12'E.

62.00 Top of ridge, 150 ft. above, ravine, bears N.60°E. and S.60°W.

Descend.

69.50 Ravine, 50 ft. deep, course SE.

Ascend.

77.95 Intersect N. bdy. of Tp. 176 lks W. of the cor. of secs. 1-2-35 and 36, heretofore described.

I destroy the marks on the cor. pertaining to secs. 1 and 2.

Set an iron post .3 ft. long. 2 in. dia., 24 ins. in the ground, for closing cor. of secs. 1 and 2, marked on brass cap.

T 33 SR 20 W S 35 S 36 CC on N. half.

S 1 in SE., and

S 2 in SW., quadrant; from which

A pinon., 6 ins. dia., bears S.34°15'E., 59 lks. dist., marked T 34 S R 20 W S 1 B T.

A pinon, 6 ins. dia., bears S.6°W., 32 lks. dist., marked T 34 S R 20 W S 2 B T.

Land, mountainous.

Soil, light sandy loam and loose rock, 4th rate, on a subsoil, of clay and lose rock.

Timber, cedars and pinon pine.

Undergrowth, scattering s age brush and bunch grass.

April 14: At this cor. I set off 90°13'N. on the decl. arc; and at 12h01<sup>p.m.</sup>., 1.m.t., observe the sun on the meri-

dian. The resulting lat. is  $37^{\circ}54'$ .

April 14.1911.

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GENERAL DESCRIPTION OF T.34 S.,R.20 W'

This township is mostly rolling hills and rough mountains, and the soil, which is mostly a light sandy loam gravel and loose rock, on a subsoil of clay and loose rock, may be classed as 3rd and 4th rates, is covered with a growth of sage brush and nutritious grasses, and is only fit for grazing purposes.

This township is generally covered with a scattering growth of cedars and pinon pine.

The only water found in this township is in a wash flowing through secs. 1-12-11 and 14, and 25 and 36.

A portion of the State Line Mining District extends into 1-2-11 and 12, and gold, silver, and lead is mined.

There is no settlers in this township.

*Ralph Lindsey*

U.S. Transitman.



FINAL OATH OF UNITED STATES SURVEYOR.

I, \_\_\_\_\_, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for \_\_\_\_\_ bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 191 \_\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_

For final oath of transitman see book "X" T. 31 S., R. 20 W.

\_\_\_\_\_ of the \_\_\_\_\_ Meridian, in the State of \_\_\_\_\_, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 191 \_\_\_\_\_

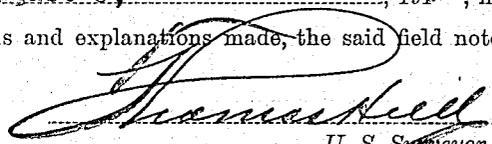


APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,  
Salt Lake City, Utah, Feb. 26 \_\_\_\_\_, 191 4.

The foregoing field notes of the survey of the subdivisonal lines of Township No. 34 South Range No. 20 west of the Salt Lake Base and Meridian, Utah,

executed by Ralph Gentry under his special instructions dated August 6, \_\_\_\_\_, 191 \_\_\_\_\_, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

  
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.

U. S. Surveyor General.

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1-579

M.

BOOK A-390

MSB.

# FIELD NOTES

OF THE SURVEY OF THE

WEST AND NORTH BOUNDARIES

AND

RETRACEMENT OF THE SOUTH BOUNDARY

OF

TOWNSHIP NO. 33 SOUTH, RANGE NO. 19 WEST

Of the SALT LAKE BASE AND Meridian,

In the State of U T A H

EXECUTED BY

RALPH GENTRY

Transitman

In the capacity of U. S. Surveyor, under instructions dated Aug. 6, 1910,

issued by the United States Surveyor General to govern surveys included in

Group No. 3, which were approved by the Commissioner of the General Land

Office, September 12, 1910, pursuant to authority contained in the Act of

Congress dated, 191...

Survey commenced April 17, 1911.

Survey completed May 6, 1911.

W. 807-1-05-25  
71 " - 4-24-50  
445 " - 7-76-99

BOOK A-390

# INDEX DIAGRAM.

Township \_\_\_\_\_, Range \_\_\_\_\_

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Survey commenced April 17, 1911, and executed with the instrument described in book "J" of this survey. I examine the adjustments of the transit, find them correct; then, to test the solar apparatus, by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At the cor. of secs. 1-6-31 and 36, Tps. 33 and 34 S., Rs. 19 and 20 W. which is a lava rock, 15x10x10 ins. above ground marked and witnessed as described by the surveyor general, in approximate lat.  $37^{\circ}53'51''$  N., longitude  $113^{\circ}58'39''$  W., I set off  $37^{\circ}54'$  N. on the lat. arc,  $10^{\circ}22'$  N. on the decl. arc, and at  $4.00^m$  p.m., l.m.t., determine a meridian with the solar and mark a point thereof, on a stone firmly set in the ground, 5 chs. N. of the cor.

April 17, 1911.

April 18: At 5h.49<sup>m</sup>., a.m., l.m.t., I observe Polaris at eastern elongation, in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground, 5 chs. N. of my station. At 7 a.m., I lay off the azimuth of Polaris,  $1^{\circ}29'$  to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.4 ins. east of the mark determined by the solar.

At 8h.0m., a.m., l.m.t., I set off  $37^{\circ}54'$  N. on the lat. arc,  $10^{\circ}36'$  N. on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observation. The solar apparatus by p.m. and a.m. observations defines positions for meridians, respectively about  $0'21''$  west and  $0'16''$  east of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the transit are satisfactory.

CHAINS

The magnetic bearing of the true meridian at 8h.30m., a.m., is N.16°W., the angle thus determined gives the mag.decl.16°E.

Thence I run

North, on the W.bdy. of Tp.

Bet.secs.31 and 36.

Ascend over mountainous land through heavy timber.

10.00 Spur, projects NW.

Descend.

27.15 Hollow, 450 ft. deep, course W.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 36 on W. half, S 31 on E. half; from which

A pinon, 10 ins. diam., bears S.73°E., 36 lks. dist., marked  $\frac{1}{4}$  S 31 BT.

A cedar, 8 ins. diam., bears N.72°30'W., 39 lks. dist., marked  $\frac{1}{4}$  S 36 BT.

44.50 Spur, projects NE.

Descend.

52.70 Hollow, 500 ft. deep, course SE.

Ascend.

68.00 Ridge, bears NE. and SW.

Descend.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 25-30-31 and 36, marked on brass cap

T 33 S on N. half,

R 20 W S 25 in NW.,

R 19 W S 30 in NE.,

S 31 in SE. and

S 36 in SW. quadrant; from which

A pinon, 6 ins. diam., bears N.7°25'E., 45 lks. dist., marked T 33 S R 19 W S 30 BT.

A pinon, 10 ins. diam., bears S.32°50'E., 36 lks. dist., marked T 33 S R 19 W S 31 BT.

SURVEY OF THE WEST BOUNDARY OF T.33 S.,R.19 W.

CHAINS

A cedar, 8 ins. diam., bears S. 51° 10' W., 49 lks. dist.,  
marked T 33 S R 20 W S 36 BT.

A pinon, 6 ins. diam., bears N. 31° 40' W., 32 lks. dist.,  
marked T 33 S R 20 W S 25 BT.

Land, mountainous, slopes SW.

Soil, light sandy loam and loose rock, 4th rate, on a sub-  
soil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land on 80.00 chs.

April 18: At this cor. I set off 10° 39' N. on the decl. arc  
and at 12 M., l.m.t., observe the sun on the meridian, the  
resulting lat. is 37° 55' N.

---

North, bet. secs. 25 and 30.

Descend over mountainous land through heavy timber.

10.60 Hollow, 250 ft. deep, course W.

Ascend.

19..25 Ridge, bears E. and W.

Descend.

33.00 Leave heavy timber, bears NE. and SW., enter scattering  
timber and dense undergrowth,

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the  
ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 25 on  
W. half, S 30 on E. half; from which

A pinon, 6 ins. diam., bears N. 43° 45' E., 185 lks. dist.,  
marked  $\frac{1}{4}$  S 30 BT:

A pinon, 6 ins. diam., bears S. 61° 50' W., 183 lks. dist.,  
marked  $\frac{1}{4}$  S 25 BT.

51.30 Stream, 6 lks. wide, 4 ins. deep, in bottom of hollow, 300 ft.  
deep, course SW.

Ascend.

60.00 Enter heavy timber, bears NW. and SE.

73.00 Spur, projects SE.

Descend.

## CHAINS

77.50 Hollow, 50 ft. deep, course SE.

Ascend.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 19-24-25 and 30, marked on brass cap

T 33 S on N. half,

R 20 W S 24 in NW.,

R 19 W S 19 in NE.,

S 30 in SE. and

S 25 in SW. quadrant; from which

A pinon, 6 ins. diam., bears N.  $38^{\circ}20'E.$ , 30 lks. dist. marked T 33 S R 19 W S 19 BT.

A pinon, 6 ins. diam., bears S.  $34^{\circ}15'E.$ , 34 lks. dist. marked T 33 S R 19 W S 30 BT.

A pinon, 8 ins. diam., bears S.  $74^{\circ}45'W.$ , 35 lks. dist. marked T 33 S R 20 W S 25 BT.

A cedar, 10 ins. diam., bears N.  $41^{\circ}30'W.$ , 54 lks. dist. marked T 33 S R 20 W S 24 BT.

Land, mountainous, slopes SW.

Soil, light sandy loam and loose rock, 4th rate, on a sub-soil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land or land covered with scattering timber and dense undergrowth on 80.00 chs.

April 18, 1911.

April 19: At 7h. 59 m., a.m., l.m.t., I set off  $37^{\circ}56'N.$  on the lat. arc,  $10^{\circ}52'N.$  on the decl. arc, and determine the meridian with the solar at the cor. of secs. 19-24-25 and 30.

Thence I run

North, bet. secs. 19 and 24.

Ascend over mountainous land through heavy timber.

31.00

Ridge, bears NE. and SW.

Descend.

35.00 Leave heavy timber, enter scattering timber and dense undergrowth. Timber bears NW. and SE.

40.00 Set an iron post, 3 ft. long, 1 ins. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor.; marked  $\frac{1}{4}$  S 24 on W. half, S 19 on E. half; from which

A pinon, 8 ins. diam., bears S. 14° E., 123 lks. dist., marked  $\frac{1}{4}$  S 19 BT.

A pinon, 6 ins. diam., bears N. 75° W., 13 lks. dist., marked  $\frac{1}{4}$  S 24 BT.

April 19: At this cor. I set off 11° 00' N. on the decl. arc, and at 11h. 59m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37° 56' N.

46.35 Hollow, 75 ft. deep, course W.

Ascend.

52.00 Enter heavy timber, bears NW. and SE.

70.00 Ridge, bears NE. and SE.

Descend.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 13-18-19 and 24, marked on brass cap

T 33 S on N. half,

R 20 W S 13 in NW.,

R 19 W S 18 in NE.,

S 19 in SE. and

S 24 in SW. quadrant; from which

A cedar, 6 ins. diam., bears N. 10° 50' E., 75 lks. dist., marked T 33 S R 19 W S 18 BT.

A cedar, 4 ins. diam., bears S. 56° 05' E., 64 lks. dist., marked T 33 S R 19 W S 19 BT.

A mahogany, 8 ins. diam., bears N. 32° 25' W., 27 lks. dist., marked T 33 S R 20 W S 13 BT.

No other trees available, raise a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, W. of cor.

Pits impracticable.

Land, mountainous, slopes SW.

CHAINS

Soil, light sandy loam and loose rock, 4th rate, on a sub-soil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, mahogany, sage brush and grass.

Heavy timbered land or land covered with scattering timber and dense undergrowth on 80.00 chs.

April 19, 1911.

April 20: At 7h.59m., a.m., l.m.t., I set off  $37^{\circ}56'N.$  on the lat. arc,  $11^{\circ}18'N.$  on the decl. arc, and determine a meridian with the solar at the cor. of secs. 13-18-19 and 24.

Thence I run

North, bet. secs. 13 and 18.

Descend over mountainous land through scattering timber and dense undergrowth.

28.50 Hollow, 500 ft. deep, course SW.

Ascend.

32.00 Spur, projects SW.

Descend.

39.50 Hollow, 350 ft. deep, course SW.

Ascend.

40.00 Spur, projects SW.

Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 13 on W. half S. 18 on E. half; from which

A cedar, 8 ins. diam., bears  $S. 85^{\circ}20'E.$ , 84 lks. dist. marked  $\frac{1}{4}$  S 18 BT.

A pinon, 8 ins. diam., bears  $S. 35^{\circ}20'W.$ , 96 lks. dist. marked  $\frac{1}{4}$  S 13 BT.

Descend.

51.00 Hollow, 400 ft. deep, course SW.

Ascend.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the

CHAINS

ground for the cor.of secs.7-12-13 and 18,marked on brass cap

T 33 S on N.half,

R 20 W S 12 in NW.,

R 19 W S 7 in NE.,

S 18 in SE.and

S 13 in SW.quadrant;raise a mound of stone,2 ft.base,  
1½ ft.high,W.of cor.No trees available.

Pits impracticable.

Land,mountainous,slopes SW.

Soil,light sandy loam and loose rock,4th rate,on a sub-  
soil of clay and loose rock.

Timber,cedar and pinon.

Undergrowth,mahogany,sage brush and grass.

Scattering timber and dense undergrowth on 80.00 chs.

April 20: At this cor.I set off 11°20'N.on the decl.  
arc and at 11h.59m.,a.m.,l.m.t.,observe the sun on the  
meridian,the resulting lat.is 37°57'N.

North,bet.secs.7 and 12.

Ascend over mountainous land through scattering timber  
and dense undergrowth.

1:6.00 Spur,projects W.

Descend.

39.00 Hollow,300 ft.deep,course NW.

Ascend.

40.00 Set an iron post,3 ft.long,1 in.diam.,26 ins.in the  
ground for the ¼ sec.cor.,marked on brass cap,¼ S 12 on  
W.half,S 7 on E.half;from which

A mahogany,10 ins.diam.,bears S.40°05'E.,72 lks.  
dist.,marked ¼ S 7 BT.

A pinon,15 ins.diam.,bears S.7°50'W.,167 lks.  
marked ¼ S 12 BT.

April 20,1911.

CHAINS

April 21: At 7h.59m., a.m., l.m.t., I set off  $37^{\circ}57'N$ . on the lat. arc,  $11^{\circ}38'N$ . on the decl. arc, and determine a meridian with the solar at the  $\frac{1}{4}$  sec. cor. bet. secs. 7 and 12.

Thence I run

North, bet. secs. 7 and 12, with continuous measurement.

56.00

Spur, projects NW.

Descend.

67.00

Hollow, 150 ft. deep, course SW.

Ascend.

70.00

Ridge, bears NE. and SW.

Descend.

80.00

Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 1-6-7 and 12, marked on brass cap

T 33 S on N. half,

R 20 W S 1 in NW.,

R 19 W S 6 in NE.,

S 7 in SE. and

S 12 in SW. quadrant; from which

A pinon, 8 ins. diam., bears  $N.50^{\circ}40'E.$ , 23 lks. dist. marked T 33 S R 19 W S 6 BT.

A pinon, 8 ins. diam., bears  $S.37^{\circ}45'E.$ , 26 lks. dist. marked T 33 S R 19 W S 7 BT.

A pinon, 6 ins. diam., bears  $S.79^{\circ}20'W.$ , 91 lks. dist. marked T 33 S R 20 W S 12 BT.

A pinon, 8 ins. diam., bears  $N.71^{\circ}05'W.$ , 13 lks. dist. marked T 33 S R 20 W S 1 BT.

Land, mountainous, slopes W.

Soil, light sandy loam and loose rock, 4th rate, on a sub-soil of clay and loose rock.

Timber, long leaf pine, cedar and pinon.

Undergrowth, mahogany, sage brush and grass.

Scattering timber or dense undergrowth on 80.00 chs.

April 21: At this cor. I set off  $11^{\circ}41'N$ . on the decl. arc and at 11h.59m., a.m., l.m.t., observe the sun on the

CHAINS

meridian, the resulting lat. is  $37^{\circ}58'N$ .

North, bet. secs. 1 and 6.

Descend over mountainous land through scattering timber and dense undergrowth.

26.00 Hollow, 425 ft. deep, course NE.

Ascend.

27.00 Wagon road, State Line to Gold Springs, bears NE. and SW.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 1 on W. half, S 6 on E. half; from which

A cedar, 8 ins. diam., bears N.  $66^{\circ}45'E$ , 394 lks. dist., marked  $\frac{1}{4}$  S 6 BT.

No other trees available, raise a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high W. of cor.

Pits impracticable.

52.00 Spur, projects E.

Descend.

58.30 Hollow, 150 ft. deep, course SE.

Ascend.

62.00 Spur, projects E.

Descend.

68.50 Hollow, 75 ft. deep, course E.

Ascend.

80.00 Set temp. Tp. cor.

Note: On account of not having retraced the S. and E. bds. of this Tp. I could not set the cor. of Tps. 32 and 33 S., Rs. 19 and 20 W. permanently.

May 5: I continue N. on the same line from the temp. Tp. cor. at 80.00 chs., bet. secs. 1 and 6, with continuous measurement, and at

85.25 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of Tps. 32 and 33 S., Rs. 19 and 20 W., marked on brass cap

T 32 S on N. half,

CHAINS

R 20 W S 36 in NW.,

R 19 W S 31 in NE.,

R 19 W S 6 in SE.,

R 20 W S 1 in SW.quadrant, and

T 33 S on S.half;raise a mound of stone ,2½ ft.base,  
2 ft.high,S.of cor.

Pits impracticable.

Land,mountainous,slopes W.

Soil,light sandy loam and loose rock,4th rate,on a sub-  
soil of clay and loose rock.

Timber,cedar and pinon.

Undergrowth,mahogany,sage brush and grass.

Scattering timber and dense undergrowth on 85.25 chs.

April 21,1911.

RETRACEMENT OF THE SOUTH BOUNDARY OF T.33 S.,R.19 W.

April 29: At 7h.57m.,am.,.l.m.t.,I set off 37°54'N.on

the lat.arc,14°16'N.on the decl.arc,and determine a

meridian with the solar at the cor.of Tps.33 and 34 S.,

Rs.19 and 20 W.;heretofore described,

Thence I run

East,retracing along S.bdy.of Tp.,

Bet.secs.6 and 31.

Ascend over mountainous land through heavy timber.

4.75 Spur,projects S.

Descend.

15.00 Hollow,130 ft.deep,course S.

Ascend.

38.20 Intersect the ¼ sec,cor.bet secs.6 and 31,which is a  
lava stone 12x10x6 ins.above ground,marked and witnessed  
as described by the surveyor general.

The course of this line is therefore E.and the distance  
38.20 chs.

Thence I run

East,from the ¼ sec.cor.bet.secs.6 and 31.

## CHAINS

Ascend over mountainous land through heavy timber.

3.30 Ridge, bears NW. and SE.

Descend.

18.20 Hollow, 300 ft. deep, course S.

Ascend.

24.50 Spur, projects SE.

Descend.

34.00 Hollow, 275 ft. deep, course S.

Ascend.

39.59 Fall 36 lks, S. of the cor. of secs. 5-6-31 and 32, which is lava stone, 12x12x6 ins. above ground, marked and witnessed as described by the surveyor general.

The course of this line is therefore N. 89° 29' E., and the distance 39.59 chs.

Land, mountainous, slopes S.

Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land on 77.79 chs.

April 29: At this cor. I set off 14° 18' N. on the decl. arc and at 11h. 57m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37° 54' N.

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East, retracing bet. secs. 5 and 32.

Ascend over mountainous land through scattering timber and dense undergrowth.

3.00 Ridge, bears NE. and SW.

Descend.

8.00 Hollow, 50 ft. deep, course S.

Ascend.

10.00 Spur, projects SE.

Descend.

33.00 Hollow, 150 ft. deep, course SE.

Ascend.

CHAINS

40.05

Fall 15 lks.N.of the  $\frac{1}{4}$  sec.cor.bet.secs.5 and 32,which is a lava rock 12x10x4 ins.above ground,marked and witnessed as described by the surveyor general.

The course of this line is therefore S.89°47'E.,and the distance 40.05 chs.

Offset over the cor.thence I run

East,retracing from the  $\frac{1}{4}$  sec.cor.

Bet.secs.5 and 32.

Ascend over mountainous land through scattering timber and dense undergrowth.

2.50

Ridge,bears NE.and SW.

Descend.

21.15

Hollow,200 ft.deep,course S.

40.10

Fall 8 lks.S.of the cor.of secs.4-5-32 and 33,which is lava stone,20x12x5 ins.above ground,marked and witnessed as described by the surveyor general.

The course of this line is therefore N.89°53'E.,and the distance 40.10 chs.

Land,mountainous,slopes S.

Soil,light sandy loam and loose rock,4th rate,on a sub-soil of clay and loose rock.

Timber,cedar and pinon.

Undergrowth,sage brush and grass.

Scattering timber or dense undergrowth on 80.15 chs.

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East,retracing bet.secs.4 and 33.

Ascend over mountainous land through heavy timber.

20.50

Ridge,bears N.and S.

Descend.

38.00

Hollow,325 ft.deep,course S.

Ascend.

39.07

Fall 9 lks.N.of the  $\frac{1}{4}$  sec.cor.bet.secs.4 and 33,which is lava rock,15x12x10 ins.above ground,marked and witnessed as described by the surveyor general.

The course of this line is therefore S.89°52'E.,and the

RETRACEMENT OF THE SOUTH BOUNDARY OF T.33 S.,R.19 W.

CHAINS

distance 39.07 chs.

Offset over the cor, thence I run

East, retracing from the  $\frac{1}{4}$  sec. cor.

Bet. secs. 4 and 33.

Ascend over mountainous land through heavy timber.

5.00 Spur, projects SE.

Descend.

25.00 Hollow, 300 ft. deep, course SE.

Ascend.

37.00 Ridge, bears NW. and E.

Descend along S. slope of ridge.

39.70 Fall 65 lks. S. of the cor. of secs. 3-4-33 and 34, which is a lava stone, 20x12x5 ins. above ground, marked and witnessed as described by the surveyor general.

The course of this line is therefore N. 89° 03' E., and the distance 39.71 chs.

Land, mountainous, slopes SE.

Soil, light sandy loam and loose rock, 4th rate, on a sub-soil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land on 78.78 chs.

April 29, 1911.

May 1: At 7h. 57m., a.m., l.m.t., I set off 37° 54' N. on the lat. arc, 14° 53' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 3-4-33 and 34.

Thence I run

East, retracing bet. secs. 3 and 34.

Descend over mountainous land through heavy timber.

12.00 Ridge bears NE. and SW.  
35.00 Hollow, 230 ft. deep, course SW.

Ascend.

39.35 Intersect the  $\frac{1}{4}$  sec. cor., bet. secs. 3 and 34, which is a lava stone 12x10x4 ins. above ground, marked and witnessed

## CHAINS

as described by the surveyor general.

The course of this line is therefore east, and the distance 39.35 chs.

Thence I run

East, from the  $\frac{1}{4}$  sec. cor. bet. secs. 3

Retracing bet. secs. 3 and 34.

Ascend over mountainous land through heavy timber.

6.50 Spur, projects NW.

Descend.

8.50 Hollow, 50 ft. deep, course SW.

Ascend.

24.50 Ridge, bears N. and S.

Descend.

32.00 Hollow, 125 ft. deep, course S.

Ascend.

37.00 Ridge, bears NE. and SW.

Descend.

41.12 Fall 41 lks. S. of the cor. of secs. 2-3-34 and 35, which is a lava rock, 18x6x4 ins. above ground, marked and witnessed as described by the surveyor general.

The course of this line is therefore N.  $89^{\circ}26'$  E., and the distance 41.12 chs.

Land, mountainous slopes SW.

Soil, light sandy loam and loose rock, 4th rate, on a sub-soil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land on 80.47 chs.

May 1: At this cor. I set off  $14^{\circ}55'$  N. on the decl. arc, and at 11h. 57m., a.m., l.m.t., observe the sun on the meridian the resulting lat. is  $37^{\circ}54'$  N.

East, retracing bet. secs. 2 and 35.

Descend over mountainous land through heavy timber.

4.00 Head of hollow, 50 ft. deep, course S.

RETRACEMENT OF THE SOUTH BOUNDARY OF T.33 S.,R.29 W.

CHAINS

Ascend.

12.00

Spur, projects S.

Descend.

40.04

Fall 28 lks.S.of the  $\frac{1}{4}$  sec.cor.bet.secs.2 and 35,which is a lava stone 10x10x4 ins.above ground,marked and witnessed as described by the surveyor general.

The course of this line is therefore N.89°36'E.,and the distance 40.04 chs.

Offset over the cor.

Thence I run

East,from the  $\frac{1}{4}$  sec.cor.

Retracing,bet.secs.2 and 35.

Descend through scattering timber and dense undergrowth.

7.50

Road,Modena to State Line,bears N.and S.

13.60

Wash,1 ch.wide,5 ft.deep,in bottom of hollow,300 ft. deep,course S.

Ascend.

26.00

Enter heavy timber,bears N.and S.

33.00

Ridge,bears N.and S.

Descend.

39.76

Fall 27 lks.N.of the cor.of secs.1-2-35 and 36,which is a lava stone 20x10x4 ins.above ground,marked and witnessed as described by the surveyor general.

The course of this line is therefore S.89°37'E.,and the distance 39.76 chs.

Land,mountainous,slopes S.

Soil,light sandy loam and loose rock,4th rate,on a sub-soil of clay and loose rock.

Timber,cedar and pinon.

Undergrowth,sage brush and grass.

Heavy timber or scattering timber and dense undergrowth on 79.80 chs.

May 1,1911.

## CHAINS

May 2: At 7h.57m., a.m., l.m.t., I set off  $37^{\circ}54'N$ . on the lat. arc,  $15^{\circ}11'N$ . on the decl. arc, and determine a meridian with the solar at the cor. of secs. 1-2-35 and 36.

Thence I run  
 East, retracing bet. secs. 1 and 36.  
 Descend over mountainous land through scattering timber.

6.75 Hollow, 100 ft. deep, course S.  
 Ascend.

24.00 Ridge, bears NW. and SE.  
 Descend.

39.68 Intersect the  $\frac{1}{4}$  sec. cor., which is a lava stone 18x12x4 ins. above ground, marked and witnessed as described by the surveyor general.  
 The course of this line is therefore east, and the distance 39.68 chs.  
 Thence I run  
 East, retracing bet. secs. 1 and 36.  
 Descend over mountainous land through scattering timber and dense undergrowth.

1.00 Hollow, 150 ft. deep, course SW.  
 Ascend.

9.00 Spur, projects NE.  
 Descend.

15.00 Hollow, 50 ft. deep, course SW.  
 Ascend.

24.00 Ridge, bears NE. and SW.  
 Descend.

28.50 Hollow, 75 ft. deep, course SW.  
 Ascend.

38.69 Fall 267 lks. S. of the cor. of Tps. 33 and 34 S., R. 18 and 19 W., which is a trachyte stone 18x12x10 ins. above ground, marked and witnessed as described by the surveyor general.  
 The course of this line is therefore  $N.86^{\circ}03'E$ ., and the distance 38.78 chs.

SURVEY OF THE NORTH BOUNDARY OF T.33 S., R.19 W.

Chains

Land, mountainous. Slopes NW.

Soil, light sandy loam and loose rock, 4th rate, on a subsoil of clay and loose rock.

Timber, cedars and pinon pine.

Undergrowth, sage brush and grass.

Scattered timber and dense undergrowth on 78.46 chs.

May 2, 1911.

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SURVEY OF THE NORTH BOUNDARY OF T.33 S., R.19 W.

May 5: At 7h. 57m., a.m., l.m.t., I set off  $37^{\circ}59'$  on the lat. arc,  $18^{\circ}04'N.$  on the decl. arc and determine a meridian with the solar at the cor. of Tps. 32 and 33 S. Rs. 18 and 19 W., heretofore described.

Thence I run

West on a random line, along the N. bdy. of Tp. 33 S., R. 19 W., setting temp.  $\frac{1}{4}$  sec. and sec. cors. at intervals of 40.00 chs.; and at 474.50 chs. intersect the W. bdy. of Tp 15 lks. N. of the cor. of Tps. 32 and 33 S., R. 19 and 20 W., heretofore described.

The falling answers to a correction of  $0^{\circ}01'$ , or 3 lks. S. per mile, counting from the NE. cor. of the Tp.,

Therefore I run

$N.39^{\circ}59'E.$ , bet. secs. 6 and 31, marking and blazing true line.

Chains	
	Ascend over mountainous land, through scattering timber.
2.75	Spur, projects S.  Descend.
6.75	Hollow, 100 ft. deep, course SE.  Ascend.
18.00	Spur, projects S.  Descend.
34.50	Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 31 on N. half, S 6 on S. half; from which  A pinon, 12 ins. dia., brs. S. 56 55'E., 106 lks. dist., marked $\frac{1}{4}$ S 6 B T.  A pinon, 8 ins. dia., brs. N. 29.10'W., 78 lks. dist., marked $\frac{1}{4}$ S 31 B T.
44.00	Road, State Line to Gold Springs, brs. NE. and SW.
47.00	Hollow, 100 ft. deep, course NE,  Ascend.
72.50	Ridge, brs. NE. and SW.  Descend.
74.50	Set an iron post, 3 ft. long, 3 ins. dia., 24 ins. in the ground for the cor. of secs. 5, 6, 31 and 32, marked on brass cap  T 32 S S 31 in NW., R 19 W S 32 in NE., R 19 W S 5 in SE. and T 33 S S 6 in SW. quadrant; raise a mound of stone 2 ft. base, $1\frac{1}{2}$ ft. high W. of cor.  No trees available ; pits impracticable.  Land , mountainous, slopes N.  Soil, clay loam and gravel, 6 ins. deep, 4th rate, on a subsoil of clay and loose rock.

CHAINS

Timber, cedar and pinon.  
 Undergrowth, sage brush and grass.  
 Scattering timber and dense undergrowth on 74.50 chs.

May 5.1911.

May 6: At 7h.57m., a.m., 1.mt., I set off 37°59'N. on the lat. arc, 16°21'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 5-6-31 and 32.

Thence I run

N. 89°59'E., bet. secs. 5 and 32.

Descend over mountainous land through scattering timber and dense undergrowth.

35.00 Hollow, 75 ft. deep, course SE.

Ascend. Enter heavy timber, bears N. and S.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 32 on N. half, S 5 on S. half; from which

A pinon, 15 ins. diam., bears N. 24°30'E., 28 lks. dist., marked  $\frac{1}{4}$  S 32 BT.

A pinon, 8 ins. diam., bears S. 41°45'E., 18 lks. dist., marked  $\frac{1}{4}$  S 5 BT.

58.00 Spur, projects S.

Descend.

65.00 Hollow, 75 ft. deep, course NE.

Ascend.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 4-5-32 and 33, marked on brass cap

T 32 S S 32 In NW.,

R 19 W S 33 in NE.,

R 19 W S 4 in SE., and

T 33 S S 5 in SW. quadrant; from which

A pinon, 12 ins. diam., bears N. 39°15'E., 29 lks. dist., marked T 32 S R 19 W S 33 BT.

CHAINS

A pinon, 12 ins. diam., bears S. 67° 15' E., 17 lks. dist., marked T 33 S R 19 W S 4 BT.

A pinon, 16 ins. diam., bears S. 52° 50' W., 200 lks. dist., marked T 33 S R 19 W S 5 BT.

A pinon, 14 ins. diam., bears N. 33° 20' W., 73 lks. dist., marked T 32 S R 19 W S 32 BT.

Land, mountainous, slopes N.

Soil, light sandy loam and loose rock, 4th rate, on a sub-soil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavy timber or scattering timber and dense undergrowth on 80.00 chs.

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N. 89° 59' E., bet. secs. 4 and 33.

Ascend over mountainous land through heavy timber.

1.50 Ridge, bears NW. and SE.

Descend.

16.00 Hollow, 50 ft. deep, course NE.

Ascend.

20.00 Ridge, bears N. and S.

Descend.

34.50 Hollow, 25 ft. deep, course NE.

Ascend.

38.00 Spur, projects S.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 33 on N. half, S 4 on S. half; from which

A pinon, 12 ins. diam., bears N. 5° 00' E., 11 lks. dist., marked  $\frac{1}{4}$  S 33 BT.

A pinon, 10 ins. diam., bears S. 19° 55' E., 124 lks. dist., marked  $\frac{1}{4}$  S 4 BT.

46.00 Foot of descent. Leave mountainous land, enter rolling land.

CHAINS

48.00 Wash, 10 lks. wide, 12 ins. deep, drains NW.

80.00 Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 3-4-33 and 34, marked on brass cap

T 32 S S 33 in NW.,

R 19 W S 34 in NE.,

R 19 W S 3 in SE. and

T 33 S S 4 in SW. quadrant; from which

A pinon, 6 ins. diam., bears N32°40'E., 50 lks. dist., marked T 32 S R 19 W S 34 BT.

A cedar, 8 ins. diam., bears S. 15°00'E., 26 lks. dist., marked T 33 S R 19 W S 3 BT.

A cedar, 6 ins. diam., bears S. 37°25'W., 46 lks. dist., marked T 33 S R 19 W S 4 BT.

A cedar, 8 ins. diam., bears N. 70°25'W., 41 lks. dist., marked T 32 S R 19 W S 33 BT.

Land, rolling and mountainous, slopes NE.

Soil, light sandy loam and gravel, 6 ins. deep, 3rd and 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land on 80.00 chs.

May 6: At this cor. I set off 16°24'N. on the decl. arc and at 11h. 57m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37°59'N.

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N. 89°59'E., bet. secs. 3 and 34.

Over gently rolling land through heavy timber.

8.00 Wagon road, State Line to Modena, bears NW. and SE. Leave heavy timber, bears N. and S.; enter scattering timber and dense undergrowth.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 34 on N. half, S 3 on S. half; dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist.; raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft.

## CHAINS

E. of cor.

80.00

Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 2-3-34 and 35, marked on brass cap

T 32 S S 34 in NW.,

R 19 W S 35 in NE.,

R 19 W S 2 in SE. and

T 33 S S 3 in SW. quadrant; dig pits 18x18x12 ins. in each sec.,  $5\frac{1}{2}$  ft. dist.; and raise a mound of earth 4 ft. base, 2 ft. high W. of cor.

Land, rolling, slopes N.

Soil, light sandy loam and gravel, 6 to 8 ins. deep, 3rd rate, on a subsoil of loose rock and clay.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land or land covered with scattering timber and dense undergrowth on 80.00 chs.

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N.  $89^{\circ}59'$  E., bet. secs. 2 and 35.

Over gently rolling land through scattering timber and dense undergrowth.

40.00

Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 35 on N. half, S 2 on S. half; dig pits 18x18x12 ins. E. and W. of post, 3 ft. dist.; raise a mound of earth  $3\frac{1}{2}$  ft. base,  $1\frac{1}{2}$  ft. high N. of cor.

72.50

Wagon road, Modena to Lund, bears NE. and SW.

80.00

Set an iron post, 3 ft. long, 3 ins. diam., 24 ins. in the ground for the cor. of secs. 1-2-35 and 36, marked on brass cap

T 32 S S 35 in NW.,

R 19 W S 36 in NE.,

R 19 W S 1 in SE. and

T 33 S S 2 in SW. quadrant; dig pits 18x18x12 ins. in each sec.  $5\frac{1}{2}$  ft. dist.; raise a mound of earth 4 ft. base,

SURVEY OF THE NORTH BOUNDARY OF T. 33 S., R. 19 W.

Chains

2 ft. high W. of cor.  
 Land, rolling, slopes E.  
 Soil, clay loam and gravel, 6 to 8 ins. deep, on subsoil of damp stiff clay.  
 Timber, cedars and pinon pine.  
 Undergrowth, sage brush and grass.  
 Scattering timber and dense undergrowth on 80.00 chs.

---

N. 89 59'E., bet. secs. 1 and 36.  
 Over gently rolling land through scattering timber and dense undergrowth.

12.00 Wash, 5 lks. wide, 12 ins. deep, drains NW.  
 28.00 Enter heavy timber, brs. N. and S.  
 36.00 Wash, 8 lks. wide, 24 ins. deep, course N.  
 40.00 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 36 on N. half, S 1 on S. half; from which

A cedar 10 ins. dia., brs. N. 21 45'E., 34 lks. dist., marked  $\frac{1}{4}$  S 36 B T.  
 A cedar 12 ins. dia., brs. S. 13 50'E., 13 lks. dist., marked  $\frac{1}{4}$  S 1 B T.

52.00 Wash, 6 lks. wide, 12 ins. deep, course N.  
 70.00 Wash, 5 lks. wide, 8 ins. deep, course NW.  
 80.00 The cor. of Tps. 32 and 33 S., Rs. 18 and 19 W.  
 Land, rolling, slopes N.  
 Soil, clay loam and gravel, 6 to 8 ins. deep, on a subsoil of damp stiff clay.  
 Timber, cedars and pinon pine.  
 Undergrowth, sage brush and grass.  
 Heavily timbered land or land covered with dense undergrowth on 80.00 chs.

May 6, 1911.

BOUNDARIES OF T.33 S., R.19 W.  
LATITUDES, DEPARTURES AND CLOSING ERRORS.

Line designated	True bearing	Distance	Latitudes		Departures	
			N. chs.	S. chs.	N. chs.	W. chs.
East bdy.	South	480.55		480.55		
South bdy	S.86 03'W	38.78		2.67		38.69
	West	39.68				39.68
	N.89 37'W	39.76	0.27			39.76
	S.89 36'W	40.04		0.28		40.04
	S.89 26'W	41.12		0.39		41.12
	West	39.35				39.35
	S.89 03'W	39.71		0.65		39.71
	N.89 52'W	39.07	0.09			39.07
	S.89 53'W	40.10		0.08		40.10
	N.89 47'W	40.05	0.15			40.05
	S.89 29'W	39.59		0.36		39.59
	West	38.20				38.20
West bdy.	North	485.25	485.25			
North bdy	N.89 59'E	474.50	0.14		474.50	
Convergency					0.57	
			485.90	484.98	475.07	475.36
			484.98			475.07
Error in lat and dep.			0.92			0.29

For general description see subdivision of T.33 S., R. 19 W.

*Ralph Gentry*  
U. S. Transitman.



FINAL OATH OF UNITED STATES SURVEYOR.

I, \_\_\_\_\_, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for \_\_\_\_\_ bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 191 \_\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_

For final oath of transitman see book "V" T. 31 S., R. 19 W.

\_\_\_\_\_ of the \_\_\_\_\_ Meridian, in the State of \_\_\_\_\_, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

\_\_\_\_\_  
U. S. Surveyor.

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 191 \_\_\_\_\_



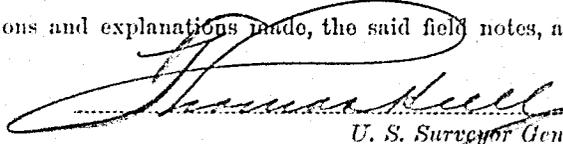
APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, Feb. 26, 1914.

The foregoing field notes of the survey of \_\_\_\_\_ the west and north, and retracement of the south and east boundaries of Township No. 33 South, Range No. 19 West of the Salt Lake Base and Meridian, Utah,

executed by \_\_\_\_\_ Ralph Gentry \_\_\_\_\_ under his special instructions dated \_\_\_\_\_ August 6, \_\_\_\_\_, 1910, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

  
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.

\_\_\_\_\_  
U. S. Surveyor General.

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BOOK A-390

N.

# FIELD NOTES

*J. H.*

OF THE SURVEY OF THE

SUBDIVISIONS OF

TOWNSHIP NO. 33 SOUTH, RANGE NO. 19 WEST

Of the Salt Lake Base and Meridian,

In the State of Utah

EXECUTED BY

Ralph Gentry

Transitman

In the capacity of U. S. Surveyor, under instructions dated Aug. 6, 1910,

issued by the United States Surveyor General to govern surveys included in

Group No. 3, which were approved by the Commissioner of the General Land

Office, Sept. 12, 1910, pursuant to authority contained in the Act of

Congress dated 1910

Survey commenced May 7, 1911

Survey completed June 10, 1911

59-77-16  
29-92

BOOK A-390

# INDEX DIAGRAM.

Township ..... Range .....

6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

Chains

Survey commenced May 7, 1911, and executed with the instrument described in book "J" of this survey. I examine the adjustments of the transit, find them correct; then, to test the solar apparatus by comparing its indications, resulting from solar observations made during a.m. and p.m. hours, with a meridian determined by observations on Polaris, I proceed as follows:

At the cor. of secs. 25, 30, 31 and 36, T. 33 S., Rs. 18 and 19 W., which is a trachyte stone 5x10x8 ins. above ground, mkd. and witnessed as described by the Surveyor General, in approximate latitude  $37^{\circ}54'46''$ N., longitude  $113^{\circ}52'05''$ W., I set off  $37^{\circ}55'$ N. on the lat. arc;  $16^{\circ}44'$ N. on the decl. arc; and at 3h 57m p.m., l.m.t., determine a meridian with the solar and mark a point thereof on a stone firmly set in the ground, 5 chs. N. of the cor.

May 7, 1911.

May 8: At 4h 29m a.m.l.m.t., I observe Polaris at eastern elongation in accordance with Manual of Instructions, and mark a point in the line thus determined, on a peg driven in the ground 5 chs. N. of my station.

At 7h a.m., I lay off the azimuth of Polaris  $1^{\circ}29'$  to the west, and mark the meridian thus determined, by cutting a small groove in the stone set last evening, on which the meridian falls 0.4 ins. east of the mark determined by the solar.

At 7h 56m a.m., l.m.t., I set off  $37^{\circ}55'$ N. on the lat. arc;  $16^{\circ}55'$ N. on the decl. arc; and mark a point in the meridian determined with the solar, by a cross on the stone already set 5 chs. N. of my station; this mark falls 0.3 ins. east of the meridian established by the Polaris observation. The solar apparatus by p.m. and a.m. observations defines positions for mer-

Subdivisions of T. 33 S., R. 19 W.

Chains

idians, respectively about 0'21" west and 0'16" east of the meridian established by the Polaris observations; therefore, I conclude that the adjustments of the transit are satisfactory.

The magnetic bearing of the true meridian at 8h 30m. a.m., is N.16°W., the angle thus determined gives the mag. decl. 16°E.

Knowing the S. bdy. to be out of limits for course and distance, I run from said cor. secs. 25, 30, 31 and 36, West, on a sectional correction line, bet. secs. 25 and 36.

Ascend over mountainous land, through heavy timber.

- 4.00 Spur, projects N. Descend.
- 8.00 Hollow, 25 ft. deep, course NE. Ascend.
- 24.00 Ridge, bears NW. and SE. Descend.
- 30.00 Hollow, 150 ft. deep, course S. Ascend.
- 36.00 Ridge, bears N. and S. Descend.
- 40.00 Set an iron post 3 ft. long, 1 in.diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 25 on N. half, S 36 on S. half; from which
  - A pinon, 6 ins.diam., bears S.65°20'W., 52 lks.dist., marked  $\frac{1}{4}$  S 36. B T
  - A pinon, 6 ins.diam., bears N.9°25'W., 22 lks.dist., marked  $\frac{1}{4}$  S 25. B T
- 46.00 Hollow, 75 ft. deep, course SE. Ascend.
- 61.50 Ridge, bears N. and S. Descend.
- 66.50 Hollow, 100 ft. deep, course SW. Ascend.
- 76.00 Ridge, bears NE. and SW. Descend.
- 80.00 Set an iron post, 3 ft. long, 2 ins.diam., 24 ins. in the ground for the cor. of secs. 25, 26, 35 and 36, marked on brass cap

T 33 S S 26 in NW

SUBDIVISIONS OF T.33 S.,R.19 W.

CHAINS

R 19 W S 25 in NE.,

S 36 in SE.and

S 35 in SW.quadrant;from which

A pinon,6 ins.diam.,bears N.36°30'E.,120 lks.  
dist.,marked T 33 S R 19 W S 25 BT.

A pinon,10 ins.diam.,bears S.45°20'E.,10 lks.  
dist.,marked T 33 S R 19 W S 36 BT.

A pinon,8 ins.diam.,bears S.38°25'W.,69 lks.  
dist.,marked T 33 S R 19 W S 35 BT.

A pinon,8 ins.diam.,bears N.16°05'W.,87 lks.  
dist.,marked T 33 S R 19 W S 26 BT.

Land,mountainous.

Soil,light sandy loam and loose rock,4th rate,on a sub-  
soil of clay and loose rock.

Timber,cedar and pinon.

Undergrowth,sage brush and grass.

Heavily timbered land on 20.00 chs.

May 8: At this cor.I set off 16°57'E.on the decl.arc,  
and at 11h.56m.,a.m.,l.m.t.,observe the sun on the  
meridian,the resulting lat.is 37°55'N.

---

West,on a sectional correction line

Bet.secs.26 and 35.

Descend over mountainous land through heavy timber.

8.00 Hollow,200 ft.deep,course SW.

Ascend.

16.00 Spur,projects SW.

Descend.

33.54 Wash,30 lks.wide,4 ft.deep,in bottom of hollow,250 ft.  
deep,course S.

Ascend.

36.50 Road,State Line to Modena,bears NW.and SE.

40.00 Set an iron post,3 ft.long,1 in.diam.,26 ins.in the  
ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 26 on  
N.half,S 35 on S.half;from which

CHAINS

A cedar, 6 ins. diam., bears S. 3°35'E., 40 lks. dist.,  
marked  $\frac{1}{4}$  S 35 ET.

A cedar, 8 ins. diam., bears N. 65°40'W., 152 lks.  
dist., marked  $\frac{1}{4}$  S 26 BT.

52.00 Spur; projects NE.  
Descend.

55.00 Hollow, 50 ft. deep, course N.  
Ascend.

78.50 Spur; projects NE.  
Descend.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the  
ground for the cor. of secs. 26-27-34 and 35, marked on  
brass cap

T 33 S S 27 in NW.,

R 19 W S 26 in NE.,

S 35 in SE, and

S 34 in SW. quadrant; from which

A pinon, 8 ins. diam., bears N. 68°10'E., 46 lks. dist.,  
marked T 33 S R 19 W S 26 BT.

A pinon, 12 ins. diam., bears S. 34°55'E., 31 lks.  
dist., marked T 33 S R 19 W S 35 BT.

A pinon, 8 ins. diam., bears S. 10°45'W., 54 lks. dist.,  
marked T 33 S R 19 W S 34 BT.

A cedar, 12 ins. diam., bears N. 27°35'W., 18 lks.  
dist., marked T 33 S R 19 W S 27 BT.

Land, mountainous.

Soil, light sandy loam and loose rock, 4th rate, on a sub-  
soil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land on 80.00 chs.

---

West, on a sectional correction line,

bet. secs. 27 and 34.

## CHAINS

- Descend over mountainous land through heavy timber.
- 9.25 Hollow, 150 ft. deep, course N.  
Ascend.
- 13.25 Spur, projects N.  
Descend.
- 30.65 Hollow, 125 ft. deep, course NE.  
Ascend.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 27 on N. half, S 34 on S. half; from which
- A pinon, 14 ins. diam., bears S. 21° E., 55 lks. dist., marked  $\frac{1}{4}$  S 34 PT.
- A pinon, 12 ins. diam., bears N. 17° 25' W., 42 lks. dist., marked  $\frac{1}{4}$  S 27 BT.
- 49.00 Spur, projects S.  
Descend.
- 51.00 Hollow, 50 ft. deep, course S.  
Ascend.
- 57.25 Wagon road, bears NE. and SW.
- 62.50 Spur, projects S.  
Descend.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 27-28-33 and 34, marked on brass cap,
- T 33 S S 28 in NW.,  
R 19 W S 27 in NE.,  
S 34 in SE. and  
S 33 in SW. quadrant; from which
- A pinon, 14 ins. diam., bears N. 46° 25' E., 58 lks. dist., marked T 33 S R 19 W S 27 ET.
- A cedar, 8 ins. diam., bears S. 65° E., 56 lks. dist., marked T 33 S R 19 W S 34 ET.
- A pinon, 10 ins. diam., bears S. 83° 50' W., 67 lks. dist., marked T 33 S R 19 W S 33 ET.
- A cedar, 10 ins. diam., bears N. 48° 15' W., 54 lks. dist., marked T 33 S R 19 W S 28 ET.

CHAINS

Land,mountainous,  
 Soil,light sandy loam and gravel,4th rate,on a subsoil  
 of clay and loose rock.  
 Timber,cedar and pinon.  
 Undergrowth,sage brush and grass.  
 Heavily timbered land on 80.00 chs.

May 8,1911.

May 9: At 7h.56m.,a.m.,l.m.t.,I set off  $37^{\circ}55'N$ .on the  
 lat.arc, $17^{\circ}11'N$ .on the decl.arc,and determine a meridian  
 with the solar at the cor.of secs.27-28-33 and 34.

Thence I run

West,on a sectional correction line

Bet.secs.28 and 33.

Descend over mountainous land through heavy timber.

40.00

Set an iron post,3 ft.long,1 in.diam.,26 ins.in the  
 ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 28 on  
 N.half,S 33 on S.half;from which

A cedar,12 ins.diam.,bears  $S.5^{\circ}25'E$ .,31 lks.  
 dist.,marked  $\frac{1}{4}$  S 33 BT.

A pinon,14 ins.diam.,bears  $N.9^{\circ}35'W$ .,51 lks.  
 dist.,marked  $\frac{1}{4}$  S 28 BT.

49.40

Hollow,150 ft.deep,course SE.

Ascend.

56.00

Spur,projects SE.

Descend.

60.00

Hollow,75 ft.deep,course SE. Ascend.

66.00

Spur,projects SE.

Descend.

80.00

Set an iron post,3 ft.long,2 ins.diam.,24 ins.in the  
 ground for the cor.of secs.28-29-32 and 33,marked on  
 brass cap.

T 33 S S 29 in NW.,

R 19 W S 28 in NE.,

S 33 in SE.and

CHAINS

S 32 in SW.quadrant;from which

A pinon,14 ins.diam.,bears N.81°55'E.,60 lks.  
dist.,marked T 33 S R 19 W S 28 BT.

A pinon,8 ins.diam.,bears S.41°50'E.,61 lks.  
dist.,marked T 33 S R 19 W S 33 BT.

A pinon,8 ins.diam.,bears S.63°W.,30 lks.dist.,  
marked T 33 S R 19 W S 32 BT.

A pinon,6 ins.diam.,bears N.66°30'W.,31 lks.  
dist.,marked T 33 S R 19 W S 29 BT.

Land,mountainous.

Soil,light sandy loam and loose rock,4th rate,on a sub-  
soil of clay and loose rock.

Timber,cedar and pinon.

Undergrowth,sage brush and grass.

Heavily timbered land on 80.00 chs.

May 9: At this cor.I set off 17°13'N.on the decl.arc,  
and at 11h56m.,a.m.,l.m.t.,observe the sun on the  
meridian,the resulting lat.is 37°55'N.

West, on a sectional correction line,

Bet.secs.29 and 32.

Descend over mountainous land through heavy timber.

6.50 Hollow,100 ft.deep,course SE.

Ascend.

26.25 Ridge,bears NW.and SE.

Descend.

33.75 Hollow,150 ft.deep,course S.

Ascend.

39.50 Spur,projects SW.

Descend.

40.00 Set an iron post,3 ft.long,1 in.diam.,26 ins.in the  
ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 29 on  
N.half,S 32 on S.half;from which

A pinon,6 ins.diam.,bears N.82°40'E.,62 lks.dist.,  
marked  $\frac{1}{4}$  S 29 BT.

## CHAINS

A pinon, 8 ins. diam., bears S. 65° 25' E., 43 lks. dist.,  
marked  $\frac{1}{4}$  S 32 ET.

May 9, 1911.

May 10: At 7h. 56m., a.m., l.m.t., I set off 37° 55' N. on the  
lat. arc, 17° 27' N. on the decl. arc, and determine a meridian  
with the solar at the  $\frac{1}{4}$  sec. cor. bet. secs. 29 and 32.

Thence I run

West, from the cor. on a sec. cor. line with continuous  
measurement,

bet. secs. 29 and 32.

Descend over mountainous land through heavy timber.

47.35 Hollow, 150 ft. deep, course S.

Ascend.

60.00 Spur, projects S.

Descend.

64.00 Hollow, 50 ft. deep, course S.

Ascend.

70.00 Spur, projects S.

Descend.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the  
ground for the cor. of secs. 29-30-31 and 32, marked on  
brass cap

T 33 S S 30 in NW.,

R 19 W S 29 in NE.,

S 32 in SE. and

S 31 in SW. quadrant; from which

A pinon, 14 ins. diam., bears N. 63° 20' E., 40 lks.  
dist., marked T 33 S R 19 W S 29 ET.

A pinon, 10 ins. diam., bears S. 55° 35' E., 52 lks.  
dist., marked T 33 S R 19 W S 32 ET.

A pinon, 16 ins. diam., bears S. 9° 55' W., 188 lks.  
dist., marked T 33 S R 19 W S 31 ET.

A pinon, 10 ins. diam., bears N. 62° 55' W., 39 lks.  
dist., marked T 33 S R 19 W S 30 ET.

Subdivision of T. 35 S., R. 19 W.

Chains

Land, mountainous.  
 Soil, light sandy loam and loose rock, 4th rate, on a  
 subsoil of clay and loose rock.  
 Timber, cedars and pinon pine.  
 Undergrowth, sagebrush and grass.  
 Heavily timbered land on 80.00 chs.  
 May 10: At this cor. I set off 17°29'N. on the decl.  
 arc; and at 11h 56m a.m.l.m.t., observe the sun on  
 the meridian, The resulting lat. is 37°55'.

West on sec. cor. line bet. secs. 30 and 31.  
 Descending over mountainous land, through heavy timber.  
 1.00 Hollow, 150 ft. deep, course SW. Ascend.  
 4.00 Spur, projects SE. Descend.  
 6.75 Hollow, 50 ft. deep, course SE. Ascend.  
 40.00 Set an iron post, 3 ft. long, 1 in.dia., 26 ins. in the  
 ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 30  
 on N. half, S 31 on S. half; from which  
     A pinon, 9 ins.dia., brs. S.54°20'E., 15  
     lks.dist., marked  $\frac{1}{4}$  S 31 B T  
     A pinon, 8 ins.dia., brs. N.45°20'W., 50  
     lks.dist., marked  $\frac{1}{4}$  S 30 B T  
 44.00 Ridge, brs. NW. and SE. Descend.  
 61.00 Hollow, 300 ft. deep, course N. Ascend abruptly.  
 68.00 Spur, projects N. Descend.  
 75.24 Intersect the W. bdy. of the Tp. 361 lks. N. of the cor.  
 of secs. 25, 30, 31 and 36, heretofore described.  
 Set an iron post 3 ft. long, 2 ins. in dia., 24 ins. in  
 the ground for the closing cor. bet. secs. 30 and 31,  
 marked on brass cap  
     T 33 S on N half  
     S 25 C C in NW  
     S 30 in NE.  
     S 31 R 19 W in SE. and  
     S 36 R 20 W in SW.quadrant; from which  
 A pinon, 8 ins.dia., brs. N.66°25'E., 96 lks.

Chains

dist., marked T 33 S R 19 W S 30 B T

A pinon, 24 ins. dia., brs. S. 48° 26' E., 65 lks.

dist., marked T 33 S R 19 W S 31 B T

I destroy all marks on the cor. of secs. 25, 30, 31 and 36 that pertain to R. 19 W.

Land, mountainous.

Soil, light sandy loam and loose rock, 4th rate on a subsoil of clay and loose rock.

Timber, cedars and pinon pine.

Undergrowth, sagebrush and grass.

Heavily timbered land on 75, 24 chs.

May 10, 1911.

May 11: At 7h 46m a.m., l.m.t., I set off 37° 55' N. on the lat. arc; 17° 43' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 25, 26, 35 and 36. Thence I run parallel to E. bdy. as found by me in my retracement prior to the corrective survey by Mayhew H. Dalley under his contract No. 241.

Note: After said survey was made my retracement was thrown out; but I had already intersected my course on this retracement. Therefore I run

S. 0° 04' E. on a random line bet. secs. 35 and 36.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

82.84 Intersect the S. bdy. of Tp. 149 lks. N. 89° 37' W., of the cor. of secs. 1, 2, 35 and 36, heretofore described.

Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for the closing cor. of secs. 35 and 36, marked on brass cap

T 33 S R 19 W on N half

S 35 in NW.,

S 36 in NE.

## CHAINS

S. 1 in SE.,

CC S 2 in SW. quadrant, and

T 34 S R 19 W in S. half; from which

A cedar, 8 ins. diam., bears N. 52° 55' E., 80 lks. dist.,  
marked T 33 S R 19 W S 36 BT.

A cedar, 6 ins. diam., bears N. 68° 15' W., 42 lks. dist.,  
marked T 33 S R 19 W S 35 BT.

I destroy all marks on the cor. of secs. 1-2-35 and 36  
that pertain to Tp. 33 S.

Thence I run

N. 0° 04' W., on a true line

bet. secs. 35 and 36.

Ascend over mountainous land through heavy timber.

19.50 Ridge, bears NE. and SW.

Descend.

42.84 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the  
ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 35 on  
W. half, S 36 on E. half; from which

A pinon, 8 ins. diam., bears S. 59° 25' E., 5 lks. dist.,  
marked  $\frac{1}{4}$  S 36 BT.

A pinon, 10 ins. diam., bears N. 38° 05' W., 73 lks.  
dist., marked  $\frac{1}{4}$  S 35 PT.

55.00 Leave heavy timber bears NW. and SE.; enter scattering  
timber and dense undergrowth.

59.50 Wagon road, bears NE. and SW., in bottom of hollow, 300 ft.  
deep, course SW.

Ascend.

79.00 Ridge, bears NE. and SW.

Descend.

82.84 The cor. of secs. 25-26-35 and 36.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil  
of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land or land covered with scattering

CHAINS

timber and dense undergrowth on 82.84 chs.  
 May 11: At this cor. I set off 17°45'N. on the decl. arc,  
 and at 11h.56m., a.m., l.m.t., observe the sun on the  
 meridian, the resulting lat. is 37°55'N.

N.0°04'W., bet. secs. 25 and 26.

Descend over mountainous land through scattering timber  
 and dense undergrowth.

4.50 Hollow, 150 ft. deep, course SW.

Ascend.

10.00 Ridge, bears NE. and SW.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the  
 ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 26 on  
 W. half, S 25 on E. half; from which

A pinon, 10 ins. diam., bears N.82°40'E., 23 lks.  
 dist., marked  $\frac{1}{4}$  S 25 BT.

A pinon, 8 ins. diam., bears N.57°35'W., 74 lks. dist.,  
 marked  $\frac{1}{4}$  S 26 BT.

47.00 Enter heavy timber, bears NW. and SE.

48.00 Hollow, 75 ft. deep, course SW.

Ascend.

68.00 Ridge, bears NE. and SW.

Descend.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the  
 ground for the cor. of secs. 23-24-25 and 26, marked on  
 brass cap

T 33 S S 23 in NW.,

R 19 W S 24 in NE.,

S 25 in SE. and

S 26 in SW. quadrant; from which

A pinon, 12 ins. diam., bears N.64°50'E., 68 lks.  
 dist., marked T 33 S R 19 W S 24 BT.

A pinon, 10 ins. diam., bears S.59°30'E., 38 lks.  
 dist., marked T 33 S R 19 W S 25 BT.

Subdivision of T: 33 S., R. 19 W.

Chains

A pinon, 8 ins. diam., bears S. 83° 25' W., 93  
 lks. dist., marked T 33 S R 19 W S 26 B T  
 A pinon, 8 ins. diam., bears N. 37° 20' W., 51  
 lks. dist., marked T 33 S R 19 W S 23 B T

Land, mountainous.

Soil, light sandy loam and loose rock, 4th rate, on a  
 subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sagebrush and grass.

Heavily timbered land or land covered with scattering  
 timber and dense undergrowth on 80.00 chs.

May 11, 1911.

May 12: At 7h 56m a.m., l.m.t., I set off 37° 56' N. on  
 the lat. arc; 17° 58' N. on the decl. arc, and determine  
 a meridian with the solar at the cor. of secs. 23, 24,  
 25 and 26.

Thence I run

East, on a random line bet. secs. 24 and 25.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

79.88 Intersect the E. bdy. of the Tp. 21 lks. S. of the cor.  
 of secs. 19, 24, 25 and 30, which is a trachyte stone  
 6x10x8 ins. above ground, mkd. and witnessed as des-  
 cribed by the Surveyor General.

Thence I run

S. 89° 51' W. on a true line bet. secs. 24 and 25.

Ascend over mountainous land, through heavy timber.

2.50 Spur, projects N.

Descend.

6.00 Hollow, 175 ft. deep, course NE.

Ascend.

13.25 Ridge, bears NW. and SE.

Descend.

27.00 Hollow, 50 ft. deep, course SW.

Ascend.

29.50 Spur, projects S.

Subdivisions of T. 33 S., R. 19 W.

Chains

- Descend.
- 32.00 Hollow, 75 ft. deep, course S.  
Ascend.
- 39.94 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 24 on N half, S 25 on S half, from which  
A pinon, 8 ins. diam., bears N. 58° E., 58 lks. dist., marked  $\frac{1}{4}$  S 24 B T  
A pinon, 6 ins. diam., bears S. 33° 20' E., 34 lks. dist., marked  $\frac{1}{4}$  S 25 B T
- 44.00 Spur, projects SW.  
Descend.
- 59.60 Hollow, 100 ft. deep, course SW.  
Ascend.
- 72.00 Ridge, bears NE. and SW.  
Descend.
- 79.88 The cor. of secs. 23, 24, 25 and 26.  
Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a sub-soil of clay and loose rock.  
Timber, cedar and pinon.  
Undergrowth, sagebrush and grass.  
Heavily timbered land on 79.88 chs.  
May 12: At this cor. I set off 18° 00' N. on the decl. arc and at 11h 56m a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 56' N.
- 
- N. 0° 04' W. bet. secs. 23 and 24.  
Descend over mountainous land, through heavy timber.
- 24.00 Hollow, 150 ft. deep, course SW.  
Ascend.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 23 on W. half, S. 24 on E. half; from which  
A cedar, 6 ins. diam., bears S. 81° 40' E., 35 lks. dist.

SUBDIVISIONS OF T.33 S.,R.19 W.

CHAINS

marked  $\frac{1}{4}$  S 24 BT.

A cedar, 6 ins.diam., bears S.48°40'W., 56 lks.dist.,  
marked  $\frac{1}{4}$  S 23 ET.

70.00 Spur, projects E.  
Descend.

72.00 Hollow, 25 ft.deep, course E.  
Ascend.

80.00 Set an iron post, 3 ft.long, 2 ins.diam., 24 ins.in the  
ground for the cor.of secs.13-14-23 and 24, marked on  
brass cap

T 33 S S 14 in NW.,

R 19 W S 13 in NE.,

S 24 in SE.and

S 23 in SW.quadrant; from which

A pinon, 6 ins.dia m., bears N.52°10'E., 52 lks.dist.,  
marked T 33 S R 19 W S 13 BT.

A pinon, 7 ins.diam., bears S.53°25'E., 47 lks.dist.,  
marked T 33 S R 19 W S 24 ET.

A pinon, 6 ins.diam., bears S.70°10'W., 22 lks.dist.,  
marked T 33 S R 19 W S 23 BT.

A pinon, 8 ins.diam., bears N.36°20'W., 76 lks.dist.,  
marked T 33 S R 19 W S 14 BT.

Land, mountainous.

Soil, light sandy loam and loose rock, 4th rate, on a sub-  
soil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land on 80.00 chs.

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N.89°51'E., on a random line, bet.secs.13 and 24.

40.00 Set temp. $\frac{1}{4}$  sec.cor.

79.98 Intersect the E.bdy.of the Tp.2 lks.S.of the cor.of secs.  
13-18-19 and 24., which is a granite stone 6x8x14 ins.  
above ground mkd.& witnessed as described by the Surveyor  
General. Thence I run  
S.89°50'W., on a true line

## CHAINS

Bet.secs.13 and 24.

Ascend over mountainous land through heavy timber.

8.00

Ridge,bears NE.and SW.

Descend.

27.20

Hollow,75 ft.deep,course SW.

Ascend.

38.00

Spur,projects SW.

Descend.

39.99

Set an iron post,3 ft.long,1 in.diam.,26 ins.in the ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 13 on N.half,S 24 on S.half;from which

A pinon,16 ins.diam.,bears S.35°50'E.,76 lks.dist., marked  $\frac{1}{4}$  S 24 FT.

A cedar,8 ins.diam.,bears N.44°45'W.,4 lks.dist., marked  $\frac{1}{4}$  S 13 ET.

41.25

Hollow,50 ft.deep,course SE.

Ascend.

48.00

Spur,projects SE.

Descend.

52.50

Hollow,100 ft,deep,course SE.

Ascend.

79.98

The cor.of secs.13-14-23 and 24.

Land,mountainous.

Soil,light sandy loam and gravel,4th rate,on a subsoil of clay and loose rock.

Timber,cedar and pinon.

Undergrowth,sage brush and grass.

Heavily timbered land on 79.98 chs.

May 12,1911.

May 25: At 7h.57m.,a.m.,l.m.t.,I set off 37°56'N.on the lat.arc,20°50'N.on the decl.arc,and determine a meridian with the solar at the cor.of secs.13-14-23 and 24.

Thence I run

N.0°04'W.,bet.secs.13 and 14.

Chains	
	Ascend over mountainous land through heavy timber.
20.00	Spur, projects E. Descend.
24.00	Hollow, 100 ft. deep, course E. Ascend.
28.75	Ridge, brs. NE. and SW. Descend.
40.000	Set an iron post, 3 ft. long, 2 in. dia., 26 ins. in the
	ground for $\frac{1}{4}$ sec. cor., marked on brass cap $\frac{1}{4}$ S 14 on
	W. half S 13 on E. half; from which
	A pinon, 10 ins. dia., brs. S. $34^{\circ}$ E., 59 lks. dist.,
	marked $\frac{1}{4}$ S 13 B T.
	A pinon 12 ins. dia., brs. S. $47^{\circ}40'$ W., 21 lks. dist.,
	marked $\frac{1}{4}$ S 14 B T.
42.60	Hollow, 150 ft. deep, course W.
	Ascend.
56.00	Ridge, brs. SE. and NW.
	Descend.
63.00	Hollow, 75 ft. deep, course NE.
	Ascend.
69.00	Spur, projects NE.
	Descend.
80.00	Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in
	the ground for the cor. of secs. 11, 12, 13, and 14,
	marked on brass cap
	T 33 S S 11 in NW.,
	R 19 W S 12 in NE.,
	S 13 in SE., and
	S 14 in SW. quadrant; from which
	A pinon, 9 ins. dia., brs. N. $58^{\circ}$ E., 100 lks. dist.,
	marked T 33 S R 19 W S 12 B T.
	A pinon, 12 ins. dia., brs. S. $56^{\circ}$ E., 185 lks.
	dist., marked T 33 S R 19 W S 13 B T.
	A cedar, 8 ins. dia., brs. S. $74^{\circ}55'$ W., 88 lks.
	dist., marked T 33 S R 19 W S 14 B T.
	A pinon 12 ins. dia., brs. N. $49^{\circ}10'$ W., 100 lks.
	dist., marked T 33 S R 19 W S 11 B T.
	Land, mountainous.
	Soil, light sandy loam and gravel, 4th rate, on a sub-

## Chains

soil of clay and loose rock.

Timber, cedars and pinon pine.

Undergrowth, sage brush and grass.

Heavily timbered land on 80.00 chs.

May 25: At this cor. I set off  $20^{\circ}53'N.$  on the decl. arc and at 11h.57m., a.m., l.m.t., observe the sun on the meridian. The resulting lat. is  $37^{\circ}57'$ .

$N.89^{\circ}50'E.$ , on a random line bet. secs. 12 and 13.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

79.94 Intersect the E. bdy. of Tp. 96 lks. S. of the cor. of secs. 7, 12, 13 and 18, which is a granite  $14 \times 12 \times 4$  ins. above ground, marked and witnessed as described by the surveyor general.

Note: The E. bdy. of sec. 13 having been rerun by Mayhew H. Dalley, 1912, changes this closing distance to 35 lks. I destroy marks on cor. pertaining to secs. 12 & 13 and Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the ground for the closing cor. bet secs. 12 and 13, marked on brass cap

T 33 S on N. half,

S 12 in NW.,

S 7 in NE.,

S 18 00 R 18 W in SE. and

S 13 R 19 W in SW. quadrant; from which

A cedar 16 ins. dia., brs.  $S.47^{\circ}55'W.$ , 3 lks. dist., marked T 33 S R 19 W S 13 B T.

A pinon, 12 ins. dia., brs.  $N.49^{\circ}35'W.$ , 286 lks. dist., marked T 33 S R 19 W S 12 B T.

Thence I run

$S.89^{\circ}50'W.$ , on a true line

Bet. secs. 12 and 13.

Descend over mountainous land through heavy timber.

2.20 Hollow, 100 ft. deep, course SW.

Ascend.

SUBDIVISIONS OF T.33 S., R.19 W.

CHAINS

- 7.00 Spur, projects S.  
Descend.
- 34.50 Hollow, 125 ft. deep, course SE.  
Ascend.
- 39.97 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 12 on N. half, S 13 on S. half; from which  
A cedar, 15 in. diam., bears N.  $69^{\circ}35'E.$ , 31 lks. dist., marked  $\frac{1}{4}$  S 12 BT.  
A pinon, 12 in. diam., bears S.  $8^{\circ}10'E.$ , 84 lks. dist., marked  $\frac{1}{4}$  S 13 BT.
- 48.00 Ridge; bears NE. and SW.  
Descend.
- 56.00 Hollow, 50 ft. deep, course NW.  
Ascend.
- 64.00 Spur, projects N.  
Descend.
- 69.00 Hollow, 50 ft. deep, course NW.  
Ascend.
- 79.94 The cor. of secs. 11-12-13 and 14.  
Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.  
Timber, cedar and pinon.  
Undergrowth, sage brush and grass.  
Heavily timbered land on 79.94 chn.

May 25, 1911.

May 26: At 7h.57m., a.m., l.m.t., I set off  $37^{\circ}57'N.$  on the lat. arc,  $21^{\circ}01'N.$  on the decl. arc, and determine a meridian with the solar at the cor. of secs. 11-12-13 and 14.  
Thence I run  
 $N.0^{\circ}04'W.$ , bet. secs. 11 and 12.  
Descend over mountainous land through heavy timber.

## CHAINS

- 9.50 Hollow, 150 ft. deep, course W.  
Ascend.
- 21.00 Spur, projects SW.  
Descend.
- 37.20 Hollow, 100 ft. deep, course SW.  
Ascend.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam. 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 11 on W. half, S 12 on E. half; from which  
A cedar, 8 ins. diam., bears S.  $35^{\circ}05'E.$ , 112 lks. dist., marked  $\frac{1}{4}$  S 12 BT.  
A cedar, 6 ins. diam., bears N.  $42^{\circ}W.$ , 37 lks. dist., marked  $\frac{1}{4}$  S 11 BT.
- 46.50 Spur, projects SW.  
Descend.
- 60.90 Hollow, 50 ft. deep, course SW.  
Ascend.
- 76.00 Ridge, bears SW. and SE.  
Descend.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 1-2-11 and 12, marked on brass cap  
T 33 S S 2 in NW.,  
R 19 W S 1 in NE.,  
S 12 in SE. and  
S 11 in SW. quadrant; from which  
A pinon, 8 ins. diam., bears N.  $67^{\circ}30'E.$ , 103 lks. dist., marked T 33 S R 19 W S 1 BT.  
A cedar, 9 ins. diam., bears S.  $62^{\circ}45'E.$ , 212 lks. dist., marked T 33 S R 19 W S 12 BT.  
A cedar, 6 ins. diam., bears S.  $17^{\circ}50'W.$ , 50 lks. dist., marked T 33 S R 19 W S 11 BT.  
A cedar, 18 ins. diam., bears N.  $69^{\circ}W.$ , 127 lks. dist., marked T 33 S R 19 W S 2 BT.
- Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a subsoil

Subdivision of T. 33 S., R. 19 W.

Chains

of clay and loose rock.  
 Timber, cedars and pinon pine.  
 Undergrowth, sagebrush and grass.  
 Heavily timbered land on 80.00 chs.  
 May 26: At this cor. I set off  $21^{\circ}02'N$ . on the decl.  
 arc; and at 11h 57m a.m., l.m.t., observe the sun on  
 the meridian, the resulting lat. is  $37^{\circ}58'$ .

40.00

N.  $89^{\circ}50'E$ . on a random line bet. secs. 1 and 12.

Set temp.  $\frac{1}{2}$  sec. cor.

79.90

Intersect the E. bdy. of Tp. 131 lks. S. of the cor. of  
 secs. 1, 6, 7 and 12, which is a granite  $16 \times 10 \times 4$  ins.  
 above ground, marked and witnessed as described by the  
 surveyor general.

Note: The E. bdy. of sec. 12 having been rerun by Mayhew  
 H. Dalley, 1912, changes this closing dist. to 45 lks.  
 I destroy marks on cor. pertaining to secs. 1 & 12. and  
 Set an iron post, 3 ft. long, 2 ins. dia., 24 ins. in the  
 ground for the closing cor. bet. secs. 1 and 12, marked  
 on brass cap

T 33 S on N. half

S 1 in NW

S 6 in NE

S 7 C C R 18 W in SE. and

S 12 R 19 W in SW. quadrant; from which

A cedar, 6 ins. dia., brs.  $S. 55^{\circ}W$ ., 77 lks.

dist., marked T 33 S R 19 W S 12 B T

A cedar, 7 ins. dia., brs.  $N. 71^{\circ}40'W$ ., 56 lks.

dist., marked T 33 S R 19 W S 1 B T

Thence I run

$S. 89^{\circ}50' W$ . on true line bet. secs. 1 and 12.

Over gently rolling land, through scattering timber and  
 dense undergrowth.

29.75

Wash, 4 lks. wide, 12 ins. deep, course NW.

39.00

Leave rolling land and scattering timber; ascend over  
 mountainous land and through heavy timber, brs. NW. and SE.

39.95

Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the

Subdivision of T. 33 S., R. 19 W.

Chains

ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 1 on N. half, S. 12 on S. half; from which

A cedar, 9 ins. dia., brs. N.  $1^{\circ}05'E.$ , 59 lks.

dist., marked  $\frac{1}{4}$  S 1 B T

A cedar, 10 ins. dia., brs. S.  $0^{\circ}45'E.$ , 7 lks.

dist., marked  $\frac{1}{2}$  S 12 B T

79.90 The cor. of secs. 1, 2, 11 and 12.

Land, rolling and mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedars and pinon pine.

Undergrowth, sagebrush and grass.

Heavily timbered land or land covered with scattering timber and dense undergrowth on 79.90 chs.

N.  $0^{\circ}04'W.$  on random line bet. secs. 1 and 2.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

81.44 Intersect the N. bdy. of the Tp. 5 lks. W. of the cor. of secs. 1, 2, 35 and 36, heretofore described.

Thence I run

S.  $0^{\circ}02'E.$  on true line bet. secs. 1 and 2.

Over gently rolling land, through dense undergrowth.

17.50 Enter scattering timber, brs. E. and W.

41.44 Set an iron post, 3 ft. long, 1 in. dia., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 2 on W half, S 1 on E half; from which

A cedar, 8 ins. dia., brs. N.  $82^{\circ}10'E.$ , 163 lks.

dist., marked  $\frac{1}{4}$  S 1 B T

A cedar, 9 ins. dia., brs. S.  $81^{\circ}45'W.$ , 43 lks.

dist., marked  $\frac{1}{4}$  S 2 B T

70.00 Leave gently rolling land, ascend over mountainous land.

81.44 The cor. of secs. 1, 2, 11 and 12.

Land, rolling and mountainous.

Soil, light sandy loam and gravel, 4th rate; on a subsoil

CHAINS

of clay and loose rock.  
 Timber, cedar and pinon.  
 Undergrowth, sage brush and grass.  
 Scattering timber or dense undergrowth on 81.44 chs.

May, 26, 1911.

May 13: At 7h.56m., a.m., l.m.t., I set off  $37^{\circ}55'N.$  on the lat. arc,  $18^{\circ}13'N.$  on the decl. arc, and determine a meridian with the solar at the cor. of secs. 26-27-34 and 35.

Thence I run

$S.0^{\circ}04'E.$ , on a random line

Bet. secs. 34 and 35.

40.00

Set temp.  $\frac{1}{4}$  sec. cor.

82.90

Intersect the S. bdy. of the Tp. 190 lks.  $S.89^{\circ}26'W.$  of the cor. of secs. 2-3-34 and 35, heretofore described.

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the closing cor. bet. secs. 34 and 35, marked on brass cap

T 33 S R 19 W on N. half,

S 34 in NW.,

S 35 in NE.,

S 2 in SE.

CC S 3 in SW. quadrant, and

T 34 S R 19 W on S. half; from which

A pinon, 10 ins. diam., bears  $N.34^{\circ}50'E.$ , 11 lks.. dist., marked T 33 S R 19 W S 35 BT.

A pinon, 10 ins. diam., bears  $N.66^{\circ}05'W.$ , 73 lks. dist., marked T 33 S R 19 W S 34 BT.

I destroy all markings on the cor. of secs. 2-3-34 and 35 that pertain to T 33 S.

Thence I run

$N.0^{\circ}04'W.$ , bet. secs. 34 and 35.

1.00

39.00

From and Over mountainous land through heavy timber. Top of ridge, bears NE. & SW. Descend. Hollow, 200 ft. deep, course NE.

## CHAINS

- Ascend.
- 42.90 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 34 on W. half, S 35 on E. half, from which
- A pinon, 8 ins. diam., bears N. 57° 28' E., 12 lks. dist., marked  $\frac{1}{4}$  S 35 BT.
- A pinon, 6 ins. diam., bears N. 18° 10' W., 31 lks. dist., marked  $\frac{1}{4}$  S 34 BT.
- 54.50 Spur, projects E.
- Descend.
- 63.00 Hollow, 75 ft. deep, course E.
- Ascend.
- 81.65 Ridge, bears SW. and SE.
- Descend.
- 82.90 The cor. of secs. 26-27-34 and 35.
- Land, mountainous.
- Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.
- Timber, cedar and pinon.
- Undergrowth, sage brush and grass.
- Heavily timbered land on 82.90 Chs.
- May 13: At this cor. I set off 18° 15' N. on the decl. arc, and at 11h. 56m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 55' N.
- 
- N. 0° 04' W., bet. secs. 26 and 27.
- Descend over mountainous land through heavy timber.
- 10.25 Hollow, 200 ft. deep, course NE.
- Ascend.
- 12.60 Wagon road, bears E. and W.
- 14.00 Spur, projects E.
- Descend.
- 18.00 Hollow, 50 ft. deep, course SE.
- Ascend.
- 34.75 Spur, projects NE.

SUBDIVISIONS OF T.33 S.,R.19 W.

CHAINS	
40.00	<p>Descend.</p> <p>Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the <math>\frac{1}{4}</math> sec. cor., marked on brass cap, <math>\frac{1}{4}</math> S 27 on W. half, S 26 on E. half; from which</p> <p style="padding-left: 40px;">A pinon, 8 ins. diam., bears N. 68° 04' E., 73 lks. dist., marked <math>\frac{1}{4}</math> S 26 BT.</p> <p style="padding-left: 40px;">A pinon, 6 ins. diam., bears S. 57° 55' W., 56 lks. dist., marked <math>\frac{1}{4}</math> S 27 BT.</p>
44.00	<p>Hollow, 50 ft. deep, course NE.</p> <p>Ascend.</p>
54.25	<p>Spur, projects E.</p> <p>Descend.</p>
59.25	<p>Hollow, 150 ft. deep, course E.</p> <p>Ascend.</p>
70.00	<p>Spur, projects E.</p> <p>Descend.</p>
80.00	<p>Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 22-23-26 and 27, marked on brass cap</p> <p style="padding-left: 40px;">T 33 S S 22 in NW.,</p> <p style="padding-left: 40px;">R 19 W S 23 in NE.,</p> <p style="padding-left: 40px;">S 26 in SE. and</p> <p style="padding-left: 40px;">S 27 in SW. quadrant; from which</p> <p style="padding-left: 80px;">A pinon, 6 ins. diam., bears N. 20° 15' E., 61 lks. dist., marked T 33 S R 19 W S 23 BT.</p> <p style="padding-left: 80px;">A cedar, 7 ins. diam., bears S. 44° 10' E., 63 lks. dist., marked T 33 S R 19 W S 26 BT.</p> <p style="padding-left: 80px;">A cedar, 8 ins. diam., bears S. 29° 10' W., 42 lks. dist., marked T 33 S R 19 W S 27 BT.</p> <p style="padding-left: 80px;">A pinon, 8 ins. diam., bears N. 70° 40' W., 29 lks. dist., marked T 33 S R 19 W S 22 BT.</p> <p>Land, mountainous.</p> <p>Soil, clay loam and gravel, 4th rate, on a subsoil of clay and loose rock.</p> <p>Timber, cedar and pinon.</p> <p>Undergrowth, sage brush and grass.</p>

CHAINS	
	<p>Heavily timbered land on 80.00 chs.</p> <p>May 13,1911.</p>
	<p>May 16: At 7h.56m., a.m., l.m.t., I set off <math>37^{\circ}56'N</math>. on the lat.arc, <math>18^{\circ}57'N</math>. on the decl.arc, and determine a meridian with the solar at the cor.of secs.22-23-26 and 27.</p> <p>Thence I run</p> <p>East, on a random line, bet.secs.23 and 26.</p>
40.00	Set temp. $\frac{1}{4}$ sec.cor.
80.06	Intersect N.and S.line, 9 lks.N.of the cor.of secs.23-24-25 and 26.
	<p>Thence I run</p> <p><math>N.89^{\circ}56'W.</math>, on a true line</p> <p>Bet.secs.23 and 26.</p> <p>Descend over mountainous land through heavy timber.</p>
14.50	Hollow, 150 ft.deep, course SW.
	Ascend.
28.00	Spur, projects S.
	Descend.
30.00	Leave heavy timber, bears N.and S.; enter scattering timber and dense undergrowth.
34.00	Hollow, 125 ft.deep, course SE.
	Ascend.
39.00	Ridge, bears N.and S.
	Descend.
40.03	Set an iron post, 3 ft.long, 1 in.diam., 26 ins.in the ground for the $\frac{1}{4}$ sec.cor., marked on brass cap, $\frac{1}{4}$ S 23 on N.half, S 26 on S.half; from which
	<p>A cedar, 6 ins.diam., bears <math>S.25^{\circ}55'W.</math>, 21 lks.dist., marked <math>\frac{1}{4}</math> S 26 BT.</p> <p>A pinon, 14 ins.diam., bears <math>N.84^{\circ}W.</math>, 56 lks.dist., marked <math>\frac{1}{4}</math> S 23 BT.</p>
47.50	Hollow, 200 ft.deeep, course SW.
	Ascend.
60.00	Ridge, bears N.and S.

CHAINS

Descend.  
 68.80 Wagon road,bears N.and S.  
 69.55 Hollow,100 ft.deep,course SW.  
 Ascend.  
 74.75 Spur,projects SE.  
 Descend.  
 76.00 Hollow,75 ft.deep,course SE.  
 Ascend.  
 80.06 The cor.of secs.22-23-26 and 27.  
 Land,mountainous.  
 Soil,light sandy loam and gravel,4th rate,on a subsoil  
 of clay and loose rock.  
 † Timber,cedar and pinon.  
 Undergrowth,sage brush and grass.  
 Heavily timbered land on 80.06 chs.  
 May 16: At this cor.I set off 18°59'N.on the decl.arc,  
 and at 11h.56m.,a.m.,l.m.t.,observe the sun on the  
 meridian,the resulting lat.is 37°56'N.  


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 N.0°04'W.,bet.secs.22 and 23.  
 Descend over mountainous land through scattering timber  
 and dense undergrowth.  
 8.40 Hollow,50 ft.deep,course SE.  
 Ascend.  
 14.00 Ridge,bears NW.and SE.  
 Descend.  
 25.85 Hollow,75 ft.deep,course SE.  
 Ascend.  
 36.00 Spur,projects NE.  
 Descend.  
 40.00 Set an iron post,3 ft.long,1 in.diam.,26 ins.in the  
 ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 22 on  
 W.half,S 23 on E.half;from which  
 A cedar,6 ins.diam.,bears N.12°15'E.,76 lks.dist.,  
 marked  $\frac{1}{4}$  S 23 BT.

CHAINS?

A pinon, 6 ins. diam., bears S.  $23^{\circ}50'W.$ , 58 lks. dist., marked  $\frac{1}{4}$  S 22 BT.

46.35 Hollow, 50 ft. deep, course SE.  
Ascend.

52.00 Spur, projects SE.  
Descend.

56.00 Hollow, 25 ft. deep, course SE.  
Ascend.

73.50 Spur, projects SE.  
Descend.

80.00 Set an iron post, 3 ft. long, 2 in. diam., 24 ins. in the ground for the cor. of secs. 14-15-22 and 23, marked on brass cap

T 33 S S 15 in NW.,  
R 19 W S 14 in NE.,  
S 23 in SE. and  
quadrant  
S 22 in SW. from which

A pinon, 6 ins. diam., bears N.  $53^{\circ}40'E.$ , 38 lks. dist., marked T 33 S R 19 W S 14 BT.

A cedar, 6 ins. diam., bears S.  $40^{\circ}40'E.$ , 55 lks. dist., marked T 33 S R 19 W S 23 BT.

A pinon, 8 ins. diam., bears S.  $11^{\circ}10'W.$ , 106 lks. dist., marked T 33 S R 19 W S 22 BT.

A pinon, 7 ins. diam., bears N.  $59^{\circ}35'W.$ , 174 lks. dist., marked T 33 S R 19 W S 15 BT.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Scattering timber and dense undergrowth on 80.00 chs.

S.  $89^{\circ}56'E.$ , on a random line, bet. secs. 14 and 23.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.04 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 13-14

## CHAINS

- 23 and 24.  
Thence I run  
N.89°58'W., on a true line  
Bet. secs. 14 and 23.  
Ascend over mountainous land through heavy timber.
- 14.50 Ridge, bears N. and S.  
Descend.
- 40.02 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 14 on N. half, S 23 on S. half; from which  
A pinon, 8 ins. diam., bears N.44°20'E., 26 lks. dist., marked  $\frac{1}{4}$  S 14 BT.  
A pinon, 7 ins. diam., bears S.5°10'E., 78 lks. dist., marked  $\frac{1}{4}$  S 23 BT.
- 44.00 Leave heavy timber, bears N. and S.; enter scattering timber and dense undergrowth.
- 61.15 Hollow, 50 ft. deep, course SW.  
Ascend.
- 63.00 Spur, projects S.  
Descend.
- 64.80 Wagon road, State Line to Modena, bears NW. and S. in bottom of hollow, 50 ft. deep, course S.
- 68.00 Spur, projects SE.  
Descend.
- 71.50 Hollow, 50 ft. deep, course SE.  
Ascend.
- 80.04 The cor. of secs. 14-15-22 and 23.  
Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.  
Timber, cedar and pinon.  
Undergrowth, sage brush and grass.  
Heavily timbered land or land covered with dense undergrowth on 80.04 chs.

May 16, 1911.

## CHAINS

May 27: At 7h.57m.,a.m.,l.m.t.,I set off  $37^{\circ}56'N$ .on the lat.arc, $21^{\circ}12'N$ .on the decl.arc,and determine a meridian with the solar at the cor.of secs.14-15-22 and 23.

Thence I run

$N.0^{\circ}04'W$ .,bet.secs.14 and 15.

Descend over mountainous land through scattering timber and dense undergrowth.

14.60 Hollow,50 ft.deep,course SE.

Ascend.

22.00 Ridge,bears NW.and SE.

Descend.

25.50 Hollow,25 ft.deep,course E.

Ascend.

28.00 Spur,projects E.

Descend.

37.00 Hollow,50 ft.deep,course SE.

Ascend.

40.00 Set an iron post,3 ft.long, $1$  in.diam.,26 ins.in the ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 15 on W.half,S 14 on E.half;from which

A pinon,6 ins.diam.,bears  $N.83^{\circ}10'E$ .,108 lks. dist.,marked  $\frac{1}{4}$  S 14 BT.

A cedar,7 ins.diam.,bears  $S.85^{\circ}20'W$ .,110 lks. dist.,marked  $\frac{1}{4}$  S 15 BT.

44.00 Spur,projects E.

Descend.

69.50 Wagon road,State Line to Modena,bears SE.and NW.,in bottom of hollow,75 ft.deep,course SE.

80.00 Set an iron post,3 ft.long,2 ins.diam.,24 ins.in the ground for the cor.of secs.10-11-14 and 15,marked on brass cap

T 33 S S 10 in NW.,

R 19 W S 11 in NE.,

S 14 in SE.and

S 15 in SW.quadrant;from which

CHAINS

A pinon, 8 ins. diam., bears N. 36° 05' E., 165 lks. dist., marked T 33 S R 19 W S 11 BT.

A pinon, 6 ins. diam., bears S. 51° 45' E., 288 lks. dist., marked T 33 S R 19 W S 14 BT.

A pinon, 8 ins. diam., bears S. 10° 30' W., 201 lks. dist., marked T 33 S R 19 W S 15 BT.

A pinon, 24 ins. diam., bears N. 72° 50' W., 155 lks. dist., marked T 33 S R 19 W S 10 BT.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Scattering timber and dense undergrowth on 80/66 chs.

S. 89° 58' E., on a random line, bet. secs. 11 and 14.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.10 Intersect N. and S. line, 14 lks. S. of the cor. of secs. 11-12-13 and 14.

May 27:

At this cor. I set off 21° 13' N. on the decl. arc, and at 11h. 57m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 57' N.

Thence I run

S. 29° 56' W., on a true line

Bet. secs. 11 and 14.

Ascend over mountainous land through scattering timber and dense undergrowth.

8.00 Spur, projects N.

Descend.

24.00 Hollow, 50 ft. deep, course N.

Ascend.

26.75 Spur, projects N.

Descend.

39.50 Hollow, 75 ft. deep, course SW.

Ascend.

## CHAINS

- 40.05 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 11 on N. half, S 14 on S. half; from which
- A pinon, 12 ins. diam., bears S.  $31^{\circ}15'E.$ , 137 lks. dist., marked  $\frac{1}{4}$  S 14 BT.
- A pinon, 8 ins. diam., bears N.  $46^{\circ}00'W.$ , 97 lks. dist., marked  $\frac{1}{4}$  S 11 BT.
- 52.00 Spur, projects S.  
Descend.
- 56.90 Hollow, 125 ft. deep, course SE.  
Ascend.
- 73.75 Ridge, bears NW. and SE.  
Descend.
- 80.10 The cor. of secs. 10-11-14 and 15.  
Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.  
Timber, cedar and pinon.  
Undergrowth, sage brush and grass.  
Scattering timber and dense undergrowth on 80.10 chs.
- 
- N.  $0^{\circ}04'W.$ , bet. secs. 10 and 11.  
Ascend over mountainous land through scattering timber and dense undergrowth.
- 13.00 Ridge, bears NW. and SE.  
Descend.
- 36.00 Hollow, 100 ft. deep, course SE.  
Ascend.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 10 on W. half, S 11 on E. half; from which
- A pinon, 6 ins. diam., bears N.  $24^{\circ}45'E.$ , 114 lks. dist., marked  $\frac{1}{4}$  S 11 BT.
- A pinon, 7 ins. diam., bears S.  $22^{\circ}35'W.$ , 70 lks. dist., marked  $\frac{1}{4}$  S 10 BT.

Subdivisions of T. 33 S., R. 19 W.

Chains

- 50.00 Wagon road, bears NE. and SW.  
 60.00 Spur, projects E.  
 Descend.  
 78.00 Head of hollow, 25 ft. deep, course SE.  
 Ascend.  
 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 2, 3, 10 and 11, marked on brass cap

T 33 S S 3 in NW

R 19 W S 2 in NE

S 11 in SE. and

S 10 in SW. quadrant; from which

A pinon, 6 ins. diam., bears N. 73° 50' E., 24

lks. dist., marked T 33 S R 19 W S 2 B T

A pinon, 10 ins. diam., bears S. 32° 05' E., 36

lks. dist., marked T 33 S R 19 W S 11 B T

A pinon, 11 ins. diam., bears S. 2° W., 57

lks. dist., marked T 33 S R 19 W S 10 B T

A cedar, 7 ins. diam., bears N. 57° 25' W., 83

lks. dist., marked T 33 S R 19 W S 3 B T

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a sub-soil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sagebrush and grass.

Scattering timber and dense undergrowth on 80.00 chs.

May 27, 1911.

May 29 At 2h 00m p.m., l.m.t., I set off 37° 58' N. on the lat. arc; 21° 34' N. on the decl. arc; and determine a meridian with the solar at the cor. of secs. 2, 3, 10 and 11.

Thence I run

N. 89° 56' E. on a random line bet. secs. 2 and 11.

- 40.00 Set temp.  $\frac{1}{4}$  sec. cor.

Subdivision of T. 33 S., R. 19 W.

Chains

80.14 Intersect N. and S. line 23 lks. N. of the cor. of secs. 1, 2, 11 and 12.

Thence I run

N.89°54'W. on a true line bet. secs. 2 and 11.

Ascend over mountainous land, through heavy timber.

40.07 Set an iron post 3 ft. long, 1 in. dia., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 2 on N. half, S 11 on S half; from which

A pinon, 8 ins. dia., bears S.5°10'W., 33 lks. dist., marked  $\frac{1}{4}$  S 11 B T

A cedar, 10 ins. dia., bears N.12°15'W., 56 lks. dist., marked  $\frac{1}{4}$  S 2 B T

41.00 Leave heavy timber, bears N. and S.; enter scattering timber and dense undergrowth.

63.00 Ridge, bears NW. and SE.

Descend.

75.00 Road, bears NE. and SW.

80.14 The cor. of secs. 2, 3, 10 and 11.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sagebrush and grass.

Heavily timbered land or land covered with scattering timber and dense undergrowth on 80.14 chs.

N.0°04'W. on a random line bet. secs. 2 and 3.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

81.26 Intersect the N. bdy. of the Tp. 7 lks. W. of the cor. of secs. 2, 3, 34 and 35, heretofore described.

Thence I run

S.0°01'E. on a true line

Bet. secs. 2 and 3.

SUBDIVISIONS OF T.33 S.,R.19 W.

CHAINS

- Over gently rolling land through dense undergrowth.
- 39.00 Enter scattering timber.
- 41.26 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 3 on W. half, S 2 on E. half; from which
- A cedar, 13 ins. diam., bears N. 21° 45' E., 133 lks. dist., marked  $\frac{1}{4}$  S 2 BT.
- A cedar, 10 ins. diam., bears S. 9° 55' W., 172 lks. dist., marked  $\frac{3}{4}$  S 3 BT.
- 48.00 Leave rolling land; ascend over mountainous land.
- 67.00 Wagon road, Modena to Lund, bears NE. and SW.
- 75.50 Ridge, bears E. and W.
- Descend.
- 81.26 The cor. of secs. 2-3-10 and 11.
- Land, rolling and mountainous.
- Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.
- Timber, cedar and pinon.
- Undergrowth, sage brush and grass.
- Scattering timber and dense undergrowth on 81.26 chs.

May 29, 1911.

- May 17: At 7h. 56m., a.m., l.m.t., I set off 37° 55' N. on the lat. arc, 19° 11' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 27-28-33 and 34.
- Thence I run
- S. 0° 05' E., on a random line, bet. secs. 33 and 34.
- 40.00 Set temp.  $\frac{1}{4}$  sec. cor.
- 83.13 Intersect the S. bdy. of the Tp. 154 lks. S. 89° 03' W., of the cor. of secs. 3-4-33 and 34, heretofore described.
- Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the closing cor. bet. secs. 33 and 34, marked on brass cap
- T 33 S R 19 W on N. half,
- S 33 in NW.,

CHAINS

S 34 in NE.,

S 3 in SE.

CC S 4 in SW.quadrant,and

T 34 S R 19 W on S.half;from which

A pinon,6 ins.diam.,bears N.17°35'E.,61 lks.dist.,  
marked T 33 S R 19 W S 34 BT.

A cedar,8 ins.diam.,bears N.11°10'W.,111 lks.  
dist.,marked T 33 S R 19 W S 33 BT.

I destroy all markings on the cor.of secs.3-4-33 and 34  
that pertain to T.33 S.

Thence I run

N.0°05'W.,on a true line,dist.1000.

Bet.secs.33 and 34.

Descend over mountainous land through scattering timber  
and dense undergrowth.

7.00 Hollow,75 ft.deep,course NE.

Ascend.

16.00 Ridge,bears NE.and SW.

Descend.

32.50 Hollow,60 ft.deep,course E.

Ascend.

43.13 Set an iron post,3 ft.long,1 in.diam.,26 ins.in the  
ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 33 on  
W.half,S 34 on E.half;from which

A cedar,6 ins.diam.,bears S.39°10'E.,143 lks.  
dist.,marked  $\frac{1}{4}$  S 34 BT.

A pinon,8 ins.diam.,bears N.43°35'W.,57 lks.  
dist.,marked  $\frac{1}{4}$  S 33 BT.

50.00 Ridge,bears E.and W.

Descend.

81.15 Hollow,50 ft.deep,course SE.

Ascend.

83.13 The cor.of secs.27-28-33 and 34.

Land,mountainous.

Soil,light sandy loam and gravel,4th rate,on a subsoil  
of clay and loose rock.

CHAINS

Timber, cedar and pinon.  
 Undergrowth, sage brush and grass.  
 Scattering timber and dense undergrowth on 83.13 chs.  
 May 17: At this cor. I set off  $19^{\circ}13'N$ . on the decl. arc,  
 and at 11h.56m., a.m., l.m.t., observe the sun on the  
 meridian, the resulting lat. is  $37^{\circ}55'N$ .

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$N.0^{\circ}05'W$ ., bet. secs. 27 and 28.

Ascend over mountainous land through heavy timber.

4.00 Ridge, bears E. and W.

Descend.

11.00 Hollow, 150 ft. deep, course E.

Ascend.

18.50 Spur, projects SW.

Descend.

24.00 Hollow, 50 ft. deep, course SW.

Ascend.

29.00 Ridge, bears NW. and SE.

Descend.

36.00 Hollow, 75 ft. deep, course NE.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the  
 ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 28 on  
 W. half, S 27 on E. half; from which

A pinon, 8 ins. diam., bears  $N.32^{\circ}50'E$ ., 17 lks. dist.,  
 marked  $\frac{1}{4}$  S 27 FT.

A pinon, 8 ins. diam., bears  $S.80^{\circ}30'W$ ., 19 lks. dist.,  
 marked  $\frac{1}{4}$  S 28 FT.

43.00 Spur, projects NE.

Descend.

57.00 Hollow, 200 ft. deep, course SE.

Ascend.

69.00 Spur, projects SE.

Descend.

CHAINS

74.75 Hollow, 50 ft. deep, course SE.

Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 21-22-27 and 28, marked on brass cap

T 33 S S 21 in NW.,

R 19 W S 22 in NE.,

S 27 in SE. and

S 28 in SW. quadrant; from which

A cedar, 8 ins. diam., bears N. 31° 10' E., 33 lks. dist., marked T 33 S R 19 W S 22 BT.

A cedar, 7 ins. diam., bears S. 45° 45' E., 23 lks. dist., marked T 33 S R 19 W S 27 BT.

A cedar, 12 ins. diam., bears S. 83° 00' W., 46 lks. dist., marked T 33 S R 19 W S 28 BT.

A pinon, 14 ins. diam., bears N. 23° 10' W., 49 lks. dist., marked T 33 S R 19 W S 21 BT.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land on 80.00 chs.

May 17, 1911.

May 18: At 7h. 56m., a.m., l.m.t., I set off 37° 56' N. on the lat. arc, 19° 24' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 22-23-26 and 27.

Thence I run

East, bet. secs. 22 and 27., on a random line,

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

7988 Intersect N. and S. line, 2 lks. S. of the cor. of secs. 22-23-26 and 27.

Thence I run

S. 89° 59' W., on a true line

CHAINS

Bet.secs.22 and 27.

Ascend over mountainous land through scattering timber and dense undergrowth.

4.00 Enter heavy timber,bears N.and S.

20.00 Ridge,bears NW.and SE.  
Descend.

28.00 Hollow,100 ft.deep,course SE.  
Ascend.

39.94 Set an iron post,3 ft.long,1 in.diam.,26 ins.in the ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 22 on N.half,S 27 on S.half;from which

A cedar,7 ins.diam.,bears S.79°45'W.,17 lks.dist., marked  $\frac{1}{4}$  S 27 BT.

A pinon,10 ins.diam.,bears N.34°30'W.,38 lks. dist.,marked  $\frac{1}{4}$  S 22 BT.

56.00 Spur,projects SE.  
Descend.

79.88 The cor.of secs.21-22-27 and 28.  
Land,mountainous.  
Soil,light sandy loam and gravel,4th rate,on a subsoil of clay and loose rock.  
Timber,cedar and pinon.  
Undergrowth,sage brush and grass.  
Heavily timbered land or land covered with scattering timber and dense undergrowth on 79.88 chs.

May 18: At this cor.I set off 19°26'N.on the decl.arc, and at 11h.56m.,a.m.,l.m.t.,observe the sun on the meridian,the resulting lat.is 37°56'N.

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N.0°05'W.,bet.secs.21 and 22.

Ascend over mountainous land through heavy timber.

8.00 Ridge,bears SE.and NW.  
Descend.

12.75 Hollow,100.ft.deep,course SE.  
Ascend.

## CHAINS

- 22.00 Ridge, bears NW.  
Descend.
- 27.35 Hollow, 75 ft. deep, course SE.  
Ascend.
- 37.75 Ridge, bears NW. and SE.  
Descend.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 21 on W. half, S 22 on E. half; from which  
A pinon, 9 ins. diam., bears N. 55° 30' E., 55 lks. dist., marked  $\frac{1}{4}$  S 22 BT.  
A pinon, 7 ins. diam., bears S. 79° 35' W., 5 lks. dist., marked  $\frac{1}{4}$  S 21 BT.
- 41.50 Hollow, 25 ft. deep, course SE.  
Ascend.
- 48.00 Ridge, bears E. and W.  
Descend.
- 52.00 Leave heavy timber, bears NW. and SE.; enter scattering timber and dense undergrowth.
- 59.75 Hollow, 100 ft. deep, course NE.  
Ascend.
- 64.00 Ridge, bears NE. and SW.  
Descend.
- 72.35 Hollow, 80 ft. deep, course SE.  
Ascend.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 15-16-21 and 22, marked on brass cap  
T 33 S S 16 in NW.,  
R 19 W S 15 in NE.  
S 22 in SE. and  
S 21 in SW. quadrant; from which  
A pinon, 12 ins. diam., bears S. 39° 05' E., 152 lks. dist., marked T 33 S R 19 W S 22 BT.  
A pinon, 10 ins. diam., bears S. 85° 30' W., 196 lks. dist., marked T 33 S R 19 W S 21 BT.

## CHAINS

A pinon, 6 ins. diam., bears N. 20° 15' W., 121 lks. dist., marked T 33 S R 19 W S 16 FT.

No other trees available, raise a mound of stone, 2 ft. base, 1½ ft. high W. of cor.

Pits impracticable.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land or land covered with scattering timber and dense undergrowth on 80.00 chs.

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N. 89° 59' E., on a random line, bet. secs. 15 and 22.

40.00 Set temp. ¼ sec. cor.

79.94 Intersect N. and S. line, 16 lks. S. of the cor. of secs. 14-15-22 and 23.

Thence I run

S. 89° 52' W., on a true line

Bet. secs. 15 and 22.

Ascend over mountainous land through heavy timber.

11.00 Ridge, bears NW. and SE.

Descend.

28.00 Hollow, 75 ft. deep, course SE.

Ascend.

36.00 Leave heavy timber, bears NW. and SE.; enter scattering timber and dense undergrowth.

39.00 Spur, projects NE.

Descend.

39.97 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., marked on brass cap, ¼ S 15 on N. half, S 22 on S. half; from which

A cedar, 8 ins. diam., bears S. 4° 15' W., 91 lks. dist., marked ¼ S 22 BT.

A pinon, 7 ins. diam., bears N. 16° 45' W., 108 lks. dist., marked ¼ S 15 FT.

SUBDIVISIONS OF T.33 S.,R.19 W.

CHAINS

41.50 Hollow, 100 ft. deep, course NE.  
Ascend.

56.00 Spur, projects N.  
Descend.

67.00 Hollow, 125 ft. deep, course NE.  
Ascend.

79.94 The cor. of secs. 15-16-21 and 22.  
Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.  
Timber, cedar and pinon.  
Undergrowth, sage brush and grass.  
Heavily timbered land or land covered with scattering timber and dense undergrowth on 79.94 chs.

May 18, 1911.

May 29: At 7h.57m., a.m., l.m.t., I set off  $37^{\circ}56'N$ . on the lat. arc,  $21^{\circ}31'N$ . on the decl. arc, and determine a meridian with the solar at the cor. of secs. 15-16-21 and 22.

Thence I run

$N.0^{\circ}05'W$ ., bet. secs. 15 and 16.

Ascend over mountainous land through scattering timber and dense undergrowth.

3.00 Spur, projects NE.

Descend.

8.00 Hollow, 75 ft. deep, course NE.

Ascend.

20.00 Spur, projects E.

Descend.

34.60 Hollow, 135 ft. deep, course SE.

Ascend.

40.00 Set an iron post, 3 ft. long, 1 in. diam.; 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 16 on W. half, S 15 on E. half; from which

Subdivisions of T. 33 S., R. 19 W.

Chains

A pinon, 6 ins.diam., bears S.81°10'E., 134  
lks.dist., marked  $\frac{1}{4}$  S 15 B T  
A cedar, 7 ins.diam., bears S.37°W., 232 lks.  
dist., marked  $\frac{1}{4}$  S 16 B T

50.00 Ridge, bears SW. and SE.  
Descend.

60.10 Hollow, 150 ft. deep, course SE.  
Ascend.

72.00 Spur, projects NE.  
Descend.

80.00 Set an iron post, 3 ft. long, 2 ins.diam., 24 ins. in the  
ground for the cor. of secs. 9, 10, 15 and 16, marked  
on brass cap

T 33 S S 9 in NW.

R 19 W S 10 in NE

S 15 in SE. and

S 16 in SW.quadrant; from which

A pinon, 6 ins.diam., bears N.7°05'E., 188  
lks.dist., marked T 33 S R 19 W S 10 B T

A pinon, 6 ins.diam., bears S.3°55'E., 513  
lks.dist., marked T 33 S R 19 W S 15 B T

A pinon, 8 ins.diam., bears S.1°00'W., 506  
lks.dist., marked T 33 S R 19 W S 16 B T

A pinon, 7 ins.diam., bears N.47°30'W., 237  
lks.dist., marked T 33 S R 19 W S 9 B T

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate on a subsoil  
of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sagebrush and grass.

Scattering timber or dense undergrowth on 80.00 chs.

N.89°52'E. on a random line bet. secs. 10 and 15.

Subdivision of T. 33 S., R. 19 W.

Chains

- 40.00 Set temp.  $\frac{1}{2}$  sec. cor.
- 79.96 Intersect N. and S. line, 24 lks. N. of the cor. of secs. 10, 11, 14 and 15.  
Thence I run  
N. 89° 58' W. on a true line  
Bet. secs. 10 and 15.  
Descend over mountainous land through scattering timber and dense undergrowth.
- 4.20 Wagon road, State Line to Modena, bears NW. and SE.
- 18.00 Hollow, 75 ft. deep, course SE.  
Ascend.
- 24.00 Spur, projects N.  
Descend.
- 28.00 Hollow, 60 ft. deep, course N.  
Ascend.
- 39.98 Set an iron post 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap  $\frac{1}{4}$  S 10 on N half, S 15 on S half; from which  
A pinon, 7 ins. diam., bears S. 57° 25' W., 61 lks. dist., marked  $\frac{1}{4}$  S 15 B T  
A cedar, 9 ins. diam., bears N. 48° 50' W., 100 lks. dist., marked  $\frac{1}{4}$  S 10 B T
- 41.00 Spur, projects N.  
Descend.
- 44.50 Hollow, 50 ft. deep, course N.  
Ascend.
- 59.30 Ridge, bears NW. and SE.  
Descend.
- 74.00 Hollow, 75 ft. deep, course SE.  
Ascend.
- 79.96 The cor. of secs. 9, 10, 15 and 16.  
Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a sub-soil of clay and loose rock.  
Timber, cedar and pinon.

CHAINS

Undergrowth, sage brush and grass.

Scattering timber and dense undergrowth on 79.96 chs.

May 29, 1911.

May 30: At 7h.57m., a.m., l.m.t., I set off  $37^{\circ}57'N.$  on the lat. arc,  $21^{\circ}41'N.$  on the decl. arc, and determine a meridian with the solar at the cor. of secs. 9-10-15 and 16.

Thence I run

$N.0^{\circ}05'W.$ , bet. secs. 9 and 10.

Descend over mountainous land through scattering timber and dense undergrowth.

1.80 Hollow, 75 ft. deep, course SE.

Ascend.

12.00 Ridge, bears  $NT.$  and  $SE.$

Descend.

15.80 Hollow, 50 ft. deep, course SE.

Ascend.

27.00 Ridge, bears  $NT.$  and  $SE.$

Descend.

31.00 Hollow, 75 ft. deep, course SE.

Ascend.

39.00 Ridge, bears  $NT.$  and  $SE.$

Descend.

40,00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 9 on W. half, S 10 on E. half; from which

A pinon, 2 in. diam., bears  $N.85^{\circ}55'E.$ , 18 lks. dist., marked  $\frac{1}{4}$  S 10  $HT.$

A pinon, 7 in. diam., bears  $N.83^{\circ}55'W.$ , 49 lks. dist., marked  $\frac{1}{4}$  S 9  $FT.$

57.25 Hollow, 125 ft. deep, course E.

Ascend.

60.00 Spur, projects E.

Descend.

## CHAINS

63.50 Hollow, 100 ft. deep, course SE.  
Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 3-4-9 and 10, marked on brass cap

T 33 S 84 in NW.,  
R 19 W S 3 in NE.;  
S 10 in SE. and  
S 9 in SW. quadrant; from which

A pinon, 6 ins. diam., bears N. 57° 25' E., 88 lks. dist., marked T 33 S R 19 W S 3 BT.

A pinon, 6 ins. diam., bears S. 8° 55' E., 33 lks. dist., marked T 33 S R 19 W S 10 BT.

A pinon, 9 ins. diam., bears S. 50° 55' W., 71 lks. dist., marked T 33 S R 19 W S 9 BT.

A pinon, 8 ins. diam., bears N. 29° 30' W., 19 lks. dist., marked T 33 S R 19 W S 4 BT.

Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.  
Timber, cedar and pinon.  
Undergrowth, sage brush and grass.  
Scattering timber and dense undergrowth on 80.00 chs.

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S. 89° 58' E., on a random line, bet. secs. 3 and 10.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.07 Intersect N. and S. line, 7 lks. S. of the cor. of secs. 2-3-10 and 11.

May 30: At this cor. I set off 21° 42' N. on the decl. arc, and at 11h. 57m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37° 58' N.

Thence I run  
S. 89° 59' W., on a true line  
Bet. secs. 3 and 10.

SUBDIVISIONS OF T.33 S.,R.19 W.

CHAINS

- Descend over mountainous land through scattering timber and dense undergrowth.
- 2.50 Hollow, 25 ft. deep, course SE.  
Ascend.
- 8.00 Ridge, bears N. and S.  
Descend.
- 23.50 Hollow, 75 ft. deep, course S.  
Ascend.
- 26.10 Wagon road, State line to Modena, bears SE. and NW.
- 35.00 Ridge, bears N. and SE.  
Descend.
- 40.03 $\frac{1}{2}$  Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 3 on E. half, S 10 on S. half; from which
- A pinon, 8 ins. diam., bears S. 11° E., 233 lks. dist., marked  $\frac{1}{4}$  S 10 BT.
- A cedar, 7 ins. diam., bears N. 51° 50' W., 165 lks. dist., marked  $\frac{1}{4}$  S 3 BT.
- 57.00 Hollow, 50 ft. deep, course SE.  
Ascend.
- 68.00 Ridge, bears NW. and SE.  
Descend.
- 74.50 Hollow, 75 ft. deep, course SE.  
Ascend.
- 80.07 The cor. of secs. 3-4-9 and 10.  
Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.  
Timber, cedar and pinon.  
Undergrowth, sage brush and grass.  
Scattering timber and dense undergrowth on 80.07 chs.
- 
- N. 0° 05' W., on a random line, bet. secs. 3 and 4.
- 40.00 Set temp.  $\frac{1}{4}$  sec. cor.

## CHAINS

- 81.33 Intersect N.bdy.of Tp.5 lks.W.of the cor.of secs.3-4-33 and 34, heretofore described.  
Thence I run  
S.0°03'E.,on a true line  
Bet.secs.3 and 4.  
Over gently rolling land through scattering timber.
- 18.15 Wash,3 lks.wide,12 ins.deep,drains W.
- 38.00 Enter heavy timber,bears NW.and SE.
- 40.00 Leave rolling land;ascend over mountainous land.
- 41.33 Set an iron post,3 ft.long,1 in.diam.,26 ins.in the ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 4 on W.half,S 3 on E.half;from which  
A pinon,8 ins.diam.,bears S.13°20'E.,24 lks.dist., marked  $\frac{1}{4}$  S 3 BT.  
A pinon,12 ins.diam.,bears N.73°55'W.,285 lks. dist.,marked  $\frac{1}{4}$  S 4 BT.
- 53.00 Ridge,bears SE.and SW.  
Descend.
- 62.40 Hollow,50 ft.deep,course SE.  
Ascend.
- 65.00 Ridge,bears NW.and SE.  
Descend.
- 81.33 The cor.of secs.3-4-9 and 10.  
Land,rolling and mountainous.  
Soil,light sandy loam and gravel,4th rate,on a subsoil of clay and loose rock.  
Timber,cedar and pinon.  
Undergrowth,sage brush and grass.  
Heavily timbered land or land covered with scattering timber and dense undergrowth on 81.33 chs.

May 30,1911.

May 19: At 7h.56m.,a.m.,l.m.t.,I set off 37°55'N.on the lat.arc,19°38'N.on the decl.arc,and determine a

## CHAINS

meridian with the solar at the cor.of secs.28-29-32 and 33.

Thence I run

S.0°06'E.,on a random line,bet.secs.32 and 33.

40.00

Set temp. $\frac{1}{4}$  sec.cor.

83.59

Intersect the S.bdy.of the Tp.2.98 chs.S.89°53'W.of the cor.of secs.4-5-32 and 33, heretofore described.

Set an iron post,3 ft.long,2 ins.diam.,24 ins.in the ground for the closing cor.bet.secs.32 and 33,marked on brass cap

T 33 S R 19 W on N.half,

S 32 in NW.,

S 33 in NE.,

S 4 in SE.

CC S 5 in SW.quadrant,and

T 34 S R 19 W on S.half;from which

A pinon,7 ins.diam.,bears N.26°15'E.,88 lks.dist., marked T 33 S R 19 W S 33 BT.

A pinon,6 ins.diam.,bears N.65°55'W.,28 lks.dist., marked T 33 S R 19 W S 32 BT.

I destroy all markings on the cor.of secs.4-5-32 and 33 that pertain to T 33 S.

Thence I run

N.0°06'W.,bet.secs.32 and 33.

Ascend over mountainous land through scattering timber and dense undergrowth.

2.50

Spur,projects W.

Descend.

7.50

Enter heavy timber,bears NE.and SW.

9.00

Hollow,200 ft.deep,course W.

Ascend.

43.59

Set an iron post,3 ft.long,1 in.diam.,26 ins.in the ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 32 on W.half,S 33 on E.half;from which

A pinon,12 ins.diam.,bears S.57°30'E.,7 lks.dist., marked  $\frac{1}{4}$  S 33 BT.

SUBDIVISIONS OF T.33 S.,R.19 W.

CHAINS

- A pinon, 8 ins. diam., bears N.48°45'W., 19 lks. dist., marked  $\frac{1}{4}$  S 32 BT.
- 53.00 Ridge, bears NW. and SE.  
Descend.
- 76.00 Hollow, 150 ft. deep, course SE.  
Ascend.
- 83.59 The cor. of secs. 28-29-32 and 33.  
Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.  
Timber, cedar and pinon.  
Undergrowth, sage brush and grass.  
Heavily timbered land or land covered with scattering timber and dense undergrowth on 83.59. chs.  
May 19: At this cor. I set off 19°40'N. on the decl. arc, and at 11h.56m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37°55'N.
- 
- N.0°06'W., bet. secs. 28 and 29.  
Ascend over mountainous land through heavy timber.
- 1.75 Spur, projects SW.  
Descend.
- 11.50 Hollow, 100 ft. deep, course SW.  
Ascend.
- 20.75 Spur, projects E.  
Descend.
- 30.65 Hollow, 75 ft. deep, course SE.  
Ascend.
- 37.00 Ridge, bears NW. and SE.  
Descend.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 29 on W. half, S 28 on E. half; from which  
A cedar, 12 ins. diam., bears S.38°45'E., 41 lks. dist., marked  $\frac{1}{4}$  S 28 BT.

SUBDIVISIONS OF T.33 S.,R.19 W.

CHAINS

- A pinon, 8 ins.diam., bears N.55°50'W., 43 lks. dist., marked  $\frac{1}{4}$  S 29 BT.
- 42.50 Hollow, 65 ft. deep, course NE.  
Ascend.
- 47.25 Spur, projects E.  
Descend.
- 50.50 Hollow, 75 ft. deep, course NE.  
Ascend.
- 57.75 Spur, projects NE.  
Descend.
- 65.75 Hollow, 175 ft. deep, course E.  
Ascend.
- 68.00 Ridge, bears NE. and SW.  
Descend.
- 71.00 Hollow, 50 ft. deep, course NE.  
Ascend.
- 73.50 Spur, projects E.  
Descend.
- 80.00 Set an iron post, 3 ft. long, 2 ins.diam., 24 ins. in the ground for the cor. of secs. 20-21-28 and 29, marked on brass cap
- T 33 S S 20 in NW.,  
R 19 W S 21 in NE.,  
S 28 in SE. and  
S 29 in SW. quadrant; from which
- A pinon, 9 ins.diam., bears N.49°55'E., 23 lks. dist., marked T 33 S R 19 W S 21 BT.
- A pinon, 12 ins.diam., bears S.32°40'E., 77 lks. dist., marked T 33 S R 19 W S 28 BT.
- A pinon, 8 ins.diam., bears S.35°45'W., 64 lks. dist., marked T 33 S R 19 W S 29 BT.
- A pinon, 12 ins.diam., bears N.62°W., 54 lks. dist., marked T 33 S R 19 W S 20 BT.
- Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

## CHAINS

Timber, cedar and pinon,  
Undergrowth, sage brush and grass.  
Heavily timbered land on 80.00 chs.

May 19, 1911.

May 20: At 7h.56m., a.m., l.m.t., I set off  $37^{\circ}56'N$ . on the lat. arc,  $19^{\circ}51'N$ . on the decl. arc, and determine a meridian with the solar at the cor. of secs. 20-21-28 and 29.

Thence I run

East, on a random line, bet. secs. 21 and 28.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.00 Intersect N. and S. line, 9 lks. S. of the cor. of secs. 21-22-27 and 28.

Thence I run

S.  $89^{\circ}56'W$ ., on a true line

Bet. secs. 21 and 28.

Descend over mountainous land through heavy timber.

6.00 Hollow, 65 ft. deep, course SE,

Ascend.

36.00 Ridge, bears NW. and SE.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 21 on N. half, S 28 on S. half; from which

A pinon, 9 ins. diam., bears N.  $45^{\circ}45'E$ ., 26 lks. dist., marked  $\frac{1}{4}$  S 21 BT.

A pinon, 10 ins. diam., bears S.  $1^{\circ}55'W$ ., 19 lks. dist., marked  $\frac{1}{4}$  S 28 BT.

47.35 Hollow, 125 ft. deep, course S.

Ascend.

48.50 Spur, projects SE.

Descend.

54.00 Enter hollow, 150 ft. deep, course SE.; thence along bottom of hollow.

## CHAINS

- 72.00 Leave hollow; ascend.
- 80.00 The cor. of secs. 20-21-28 and 29.  
Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.  
Timber, cedar and pinon.  
Undergrowth, sage brush and grass.  
Heavily timbered land on 80.00 chs.  
May 20: At this cor. I set off  $19^{\circ}52'N.$  on the decl. arc, and at 11h.56m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is  $37^{\circ}56'N.$
- 
- $N.0^{\circ}06'W.$ , bet. secs. 20 and 21.  
Descend over mountainous land through heavy timber.
- 9.15 Hollow, 65 ft. deep, course E.  
Ascend.
- 18.00 Spur, projects E.  
Descend.
- 32.60 Hollow, 250 ft. deep, course SE.  
Ascend.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 20 on W. half, S 21 on E. half; from which  
A cedar, 14 ins. diam., bears  $S.77^{\circ}35'E.$ , 30 lks. dist., marked  $\frac{1}{4}$  S 21 BT.  
A pinon, 9 ins. diam., bears  $N.46^{\circ}45'W.$ , 27 lks. dist., marked  $\frac{1}{4}$  S 20 BT.
- 60.00 Spur, projects W.  
Descend.
- 69.80 Hollow, 100 ft. deep, course W.  
Ascend. Along W. side of ridge.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 16-17-20 and 21, marked on brass cap

CHAINS

T 33 S S 17 in NW.,  
 R 19 W S 16 in NE.,  
 S 21 in SE.and  
 S 20 in SW.quadrant;from which

A pinon,14 ins.diam.,bears N.35°45'E.,41 lks.  
 dist.,marked T 33 S R 19 W S 16 BT.

A pinon,12 ins.diam.,bears S.24°05'E.,12 lks.  
 dist.,marked T 33 S R 19 W S 21 BT.

A pinon,9 ins.diam.,bears S.72°25'W.,40 lks.  
 dist.,marked T 33 S R 19 W S 20 BT.

A pinon,9 ins.diam.,bears N.64°35'W.,36 lks.  
 dist.,marked T 33 S R 19 W S 17 BT.

Land,mountainous.

Soil,light sandy loam and gravel,4th rate,on a subsoil  
 of clay and loose rock.

Timber,cedar and pinon.

Undergrowth,sage brush and grass.

Heavily timbered land on 80.00 chs.

May 20,1911.

May 31; At 7h.57m.,a.m.,l.m.t.,I set off 37°56'N.on the  
 lat.arc,21°50'N.on the decl.arc,and determine a meridian  
 with the solar at the cor.of secs.16-17-20 and 21.

Thence I run

N.89°56'E.,on a random line,bet.secs.16 and 21.

40.00 Set temp.¼ sec.cor.

80.06 Intersect N.and S.line,7 lks.S.of the cor.of secs.15-  
 16-21 and 22.

Thence I run

S.89°53'W.,on a true line

Bet.secs.16 and 21.

Ascend over mountainous land through scattering timber  
 and dense undergrowth.

6.00 Spur,projects N.

## CHAINS

- Descend.
- 15.60 Hollow, 60 ft. deep, course NE.  
Ascend.
- 24.00 Spur, projects N.  
Descend.
- 29.40 Hollow, 50 ft. deep, course NE.  
Ascend. Enter heavy timber, bears NW, and SE.
- 40.03 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 16 on N. half, S 21 on S. half; from which  
A pinon, 6 ins. diam., bears S. 22° 25' W., 51 lks. dist., marked  $\frac{1}{4}$  S 21 BT.  
A pinon, 10 ins. diam., bears N. 58° 30' W., 196 lks. dist., marked  $\frac{1}{4}$  S 16 BT.
- 51.50 Ridge, bears NE. and SW.  
Descend.
- 57.00 Head of hollow, 25 ft. deep, course N.  
Ascend.
- 65.00 Ridge, bears NW. and SE.  
Descend.
- 69.00 Hollow, 50 ft. deep, course SE.  
Ascend.
- 79.00 Ridge, bears N. and S.  
Descend.
- 80.06 The cor. of secs. 16-17-20 and 21.  
Land, mountainous.  
Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.  
Timber, cedar and pinon.  
Undergrowth, sage brush and grass.  
Heavily timbered land or land covered with scattering timber and dense undergrowth on 80.06 chs.  
May 31: At this cor. I set off 21° 51' N. on the decl. arc, and at 11h. 57m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37° 56' N.

## CHAINS

N.0°06'W.,bet.secs.16 and 17.

Ascend over mountainous land along west slope of ridge through heavy timber.

14.00 Ridge,bears NW.and SE.

Descend.

18.50 Hollow,100 ft.deep,course NE.

Ascend.

24.00 Spur,projects NE.

Descend.

40.00 Set an,iron post,3 ft.long,1 in.diam.,26 ins.in the ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 17 on W.half,S 16 on E.half;from which

A pinon,9 ins.diam.,bears S.80°50'E.,53 lks. dist.,marked  $\frac{1}{4}$  S 16 BT.

A pinon,8 ins.diam.,bears S.36°35'W.,73 lks. dist.,marked  $\frac{1}{4}$  S 17 BT.

May 31,1911.

June 1: At 7h.57m.,a.m.,l.m.t.,I set off 37°56'N.on the latl.arc,21°58'N.on the decl.arc,and determine a meridian with the solar at the  $\frac{1}{4}$  sec.cor.bet.secs.16 and 17.

Thence I run

N.0°06'W.,bet.secs.16 and 17,with continuous measurement.

75.30 Hollow,200 ft.deep,course NE.

Ascend.

80.00 Set an iron post,3 ft.long,2 ins.diam.,24 ins.in the ground for the cor.of secs.8-9-16 and 17,marked on brass cap

T 33 S S 8 in NW.,

R 19 W S 9 in NE.,

S 16 in SE.and

S 17 in SW.quadrant;from which

A pinon,12 ins.diam.,bears N.48°20'E.,86 lks. dist.,marked T 33 S R 19 W S 9 BT.

A pinon,11 ins.diam.,bears S.59°50'E.,36 lks. dist.,marked T 33 S R 19 W S 16 BT.

## CHAINS

A pinon, 16 ins. diam., bears S.  $26^{\circ}05'W.$ , 50 lks. dist., marked T 33 S R 19 W S 17 BT.

A pinon, 9 ins. diam., bears N.  $11^{\circ}W.$ , 9 lks. dist., marked T 33 S R 19 W S 8 BT.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land on 80.00 chs.

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N.  $89^{\circ}53'E.$ , on a random line, bet. secs. 9 and 16.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.04 Intersect N. and S. line, 9 lks. N. of the cor. of secs. 9-10-15 and 16.

June 1: At this cor. I set off  $21^{\circ}59'N.$  on the decl. arc, and at 11h. 57m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is  $37^{\circ}57'N.$

Thence I run

S.  $89^{\circ}57'W.$ , on a true line

Bet. secs. 9 and 16.

Ascend over mountainous land through scattering timber and dense undergrowth.

10.75 Spur, projects N.

Descend.

14.90 Hollow, 50 ft. deep, course NE.

Ascend.

21.50 Spur, projects N.

Descend.

24.40 Hollow, 50 ft. deep, course NE.

Ascend.

26.00 Enter heavy timber, bears N. and S.

36.00 Spur, projects N.

Descend.

40.02 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the

CHAINS

ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 9 on N.half,S 16 on S.half;from which

A pinon,14 ins.diam.,bears N.47°15'E.,20 lks. dist.,marked  $\frac{1}{4}$  S 9 BT.

A pinon,8 ins.diam.,bears S.44°35'W.,67 lks. dist.,marked  $\frac{1}{4}$  S 16 BT.

44.50 Hollow,60 ft.deep,course N.

Ascend.

80.04 The cor.of secs.8-9-16 and 17.

Land,mountainous.

Soil,light sandy loam and gravel,4th rate,on a subsoil of clay and loose rock.

Timber,cedar and pinon.

Undergrowth,sage brush and grass.

Heavily timbered land or land covered with scattering timber and dense undergrowth on 80.04 chs.

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N.0°06'W.,bet.secs.8 and 9.

Ascend over mountainous land through heavy timber.

8.00 Spur,projects NE.

Descend.

14.00 Hollow,100 ft.deep,course SE.

Ascend.

18.00 Spur,projects SE.

Descend.

20.50 Hollow,25 ft.deep,course SE.

Ascend.

40.00 Ridge,bears NE.and SW.

Set an iron post,3 ft.long,1 in.diam.,26 ins.in the ground for the  $\frac{1}{4}$  sec.cor.,marked on brass cap, $\frac{1}{4}$  S 8 on W.half,S 9 on E.half;from which

A pinon,12 ins.diam.,bears N.74°E.,13 lks.dist., marked  $\frac{1}{4}$  S 9 BT.

A pinon,14 ins.diam.,bears S.69°40'W.,30 lks. dist.,marked  $\frac{1}{4}$  S 8 BT.

CHAINS

June 2: At 7h58m., a.m., l.m.t., I set off 37°57'N. on the lat. arc, 22°07'N. on the decl. arc, and determine a meridian with the solar at the  $\frac{1}{4}$  sec. cor. bet. secs. 8 and 9.

Thence I run

N. 0°06'W., bet. secs. 8 and 9; with continuous measurement.

Descend over mountainous land through heavy timber.

51.00 Hollow, 250 ft. deep, course NE.

Ascend.

62.00 Ridge, bears NW. and SE.

Descend.

72.75 Hollow, 125 ft. deep, course NE.

Ascend.

79.25 Spur, projects E.

Descend.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 4-5-8 and 9, marked on brass cap

T 33 S S 5 in NW.,

R 19 W S 4 in NE.,

S 9 in SE. and

S 8 in SW. quadrant; from which

A pinon, 12 ins. diam., bears N. 52°05'E., 54 lks. dist., marked T 33 S R 19 W S 4 BT.

A pinon, 12 ins. diam., bears S. 61°50'E., 21 lks. dist., marked T 33 S R 19 W S 9 BT.

A pinon, 9 ins. diam., bears S. 35°W., 44 lks. dist., marked T 33 S R 19 W S 8 BT.

A pinon, 6 ins. diam., bears N. 34°25'W., 7 lks. dist., marked T 33 S R 19 W S 5 BT.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land on 80,00 chs.

SUBDIVISIONS OF T.33 S.,R.19 W.

CHAINS	
40.00	N.89°57'E., on a random line, bet. secs. 4 and 9. Set temp. $\frac{1}{4}$ sec. cor.
79.92	Intersect N. and S. line, 5 lks. S. of the cor. of secs. 3-4-9 and 10. June 2: At this cor. I set off 22°08'N. on the decl. arc, and at 11h.58m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is 37°58'N. Thence I run S.89°55'W., on a true line Bet. secs. 4 and 9. Ascend over mountainous land through heavy timber.
1.75	Spur, projects S. Descend.
5.30	Hollow, 100 ft. deep, course S. Ascend.
22.25	Spur, projects SE. Descend.
28.00	Hollow, 50 ft. deep, course SE. Ascend.
39.00	Spur, projects S. Descend.
39.96	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 4 on N. half, S 9 on S. half; from which A pinon, 12 ins. diam., bears N.46°35'E., 98 lks. dist., marked $\frac{1}{4}$ S 4 BT. A pinon, 7 ins. diam., bears S.11°05'E., 200 lks. dist., marked $\frac{1}{4}$ S 9 BT.
41.00	Hollow, 75 ft. deep, course SE. Ascend.
57.50	Spur, projects SE. Descend.
62.50	Hollow, 100 ft. deep, course SE. Ascend along N. slope of ridge.
79.92	The cor. of secs. 4-5-8 and 9. Land, mountainous.

## CHAINS

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land on 79.92 chs.

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N.0°06'W., on a random line, bet. secs. 4 and 5.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

81.36 Intersect N, bdy. of Tp. 9 lks. E. of the cor. of secs. 4-5-32 and 33, heretofore described.

Thence I run

S.0°10'E., on a true line,

Bet. secs. 4 and 5.

Ascend over mountainous land through heavy timber.

23.50 Ridge, bears NE. and SW.

Descend.

32.00 Hollow, 60 ft. deep, course SE.

Ascend.

41.36 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 5 on W. half, S 4 on E. half; from which

A pinon, 8 ins. diam., bears S.75°30'E., 11 lks. dist., marked  $\frac{1}{4}$  S 4 BT.

A pinon, 7 ins. diam., bears S.46°35'W., 27 lks. dist., marked  $\frac{1}{4}$  S 5 BT.

52.00 Ridge, bears NW. and SE.

Descend.

64.60 Hollow, 100 ft. deep, course SE.

Ascend.

81.36 The cor. of secs. 4-5-8 and 9.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

CHAINS

Heavily timbered land on 81.36 chs.

June 2, 1911.

May 22: At 7h.56m., a.m., l.m.t., I set off  $37^{\circ}55'N.$  on the lat. arc,  $20^{\circ}16'N.$  on the decl. arc, and determine a Meridian with the solar at the cor. of secs. 29-30-31 and 32.

Thence I run

$S.0^{\circ}06'E.$ , on a random line, bet. secs. 31 and 32.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

83.43 Intersect the S. bdy. of Tp. 272 lks.  $S.89^{\circ}29'W.$ , of the cor. of secs. 5-6-31 and 32, heretofore described.

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the closing cor. bet. secs. 31 and 32, marked on brass cap

T 33 S R 19 W on N. half,

S 31 in NW.,

S 32 in NE.,

S 5 in SE.,

CC S 6 in SW. quadrant, and

T 34 S R 19 W on S. half; from which

A pinon, 8 ins. diam., bears  $N.41^{\circ}55'E.$ , 35 lks. dist., marked T 33 S R 19 W S 32 BT.

A pinon, 12 ins. diam., bears  $N.43^{\circ}10'W.$ , 313 lks. dist., marked T 33 S R 19 W S 31 BT.

I destroy all markings on the cor. of secs. 5-6-31 and 32 that pertain to T 33 S.

Thence I run

$N.0^{\circ}06'W.$ , on a true line

Bet. secs. 31 and 32.

Descend over mountainous land through heavy timber.

1.50 Hollow, 50 ft. deep, course W.

Ascend.

25.40 Spur, projects NE.

Descend.

CHAINS	
36.00	Hollow, 50 ft. deep, course SE. Ascend.
43.43	Spur, projects E. Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 31 on W. half, S 32 on E. half; from which A pinon, 11 ins. diam., bears S. $24^{\circ}55'$ E., 39 lks. dist., marked $\frac{1}{4}$ S 32 PT. A pinon, 9 ins. diam., bears S. $78^{\circ}40'$ W., 41 lks. dist., marked $\frac{1}{4}$ S 31 PT. Descend.
52.00	Hollow, 75 ft. deep, course SE. Ascend.
60.90	Spur, projects SW. Descend.
83.43	The cor. of secs. 29-30-31 and 32. Land, mountainous. Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock. Timber, cedar and pinon. Undergrowth, sage brush and grass. Heavily timbered land on 83.43 chs. May 22: At this cor. I set off $20^{\circ}17'$ N. on the decl. arc, and at 11h. 56m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is $37^{\circ}55'$ N.
4.50	N. $0^{\circ}06'$ W., bet. secs. 29 and 30. Descend over mountainous land through heavy timber. Hollow, 50 ft. deep, course SW. Ascend.
20.00	Spur, projects E. Descend.
25.00	Hollow, 25 ft. deep, course SE. Ascend.
36.00	Spur, projects E.

## CHAINS

- Descend.
- 37.50 Hollow, 25 ft. deep, course SE.
- Ascend.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 30 on W. half, S 29 on E. half; from which;
- A pinon, 9 ins. diam., bears N. 82° 25' E., 20 lks. dist., marked  $\frac{1}{4}$  S 29 BT.
- A pinon, 12 ins. diam., bears N. 61° 40' W., 29 lks. dist., marked  $\frac{1}{4}$  S 30 BT.
- 46.00 Spur, projects E.
- Descend.
- 63.01 An unnamed spring bears N. 84° 38' W., 357 lks. dist.,
- 64.00 Hollow, 60 ft. deep, course SE.
- Ascend.
- 67.00 Spur, projects SE.
- Descend.
- 70.50 Hollow, 70 ft. deep, course SE.
- Ascend.
- 80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the cor. of secs. 19-20-29 and 30, marked on brass cap
- T 33 S S 19 in NW.,
- R 19 W S 20 in NE.,
- S 29 in SE. and
- S 30 in SW. quadrant; from which
- A pinon, 9 ins. diam., bears N. 84° 55' E., 24 lks. dist., marked T 33 S R 19 W S 20 BT.
- A pinon, 11 ins. diam., bears S. 23° 35' E., 21 lks. dist., marked T 33 S R 19 W S 29 BT.
- A pinon, 13 ins. diam., bears S. 82° 35' W., 62 lks. dist., marked T 33 S R 19 W S 30 BT.
- A pinon, 13 ins. diam., bears N. 63° 05' W., 54 lks. dist., marked T 33 S R 19 W S 19 BT.
- Land, mountainous.
- Soil, light sandy loam and gravel, 4th rate, on a subsoil

CHAINS

of clay and loose rock.  
 Timber, cedar and pinon.  
 Undergrowth, sage brush and grass.  
 Heavily timbered land on 80.00 chs.

May 22, 1911.

May 23: At 7<sup>h</sup>.56<sup>m</sup>., a.m., l.m.t., I set off 37°56' N. on the lat. arc, 20°27' N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 19-20-29 and 30.

Thence I run

East, on a random line, bet. secs. 20 and 29.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.06 Intersect N. and S. line, 5 lks. N. of the cor. of secs. 20-21-28 and 29.

Thence I run

N. 89°58' W., on a true line

Bet. secs. 20 and 29.

Ascend over mountainous land through heavy timber.

8.00 Spur, projects N.

Descend.

14.35 Hollow, 70 ft. deep, course N.

Ascend.

24.00 Ridge, bears NW. and SE.

Descend.

28.00 Hollow, 30 ft. deep, course SE.

Ascend.

33.00 Ridge, bears NE. and S.

Descend.

40.03 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 20 on N. half, S 29 on S. half; from which

A cedar, 14 ins. diam., bears N. 43° E., 26 lks. dist., marked  $\frac{1}{4}$  S 20 BT.

A pinon, 13 ins. diam., bears S. 75° E., 47 lks. dist., marked  $\frac{1}{4}$  S 29 BT.

CHAINS	
49.40	Hollow, 100 ft. deep, course NW. Ascend.
60.00	Spur, projects N. Descend.
62.75	Hollow, 75 ft. deep, course SW. Ascend.
68.00	Spur, projects S. Descend.
71.50	Hollow, 50 ft. deep, course S. Ascend.
76.00	Spur, projects S. Descend.
80.06	<p>The cor. of secs. 19-20-29 and 30.</p> <p>Land, mountainous.</p> <p>Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.</p> <p>Timber, cedar and pinon.</p> <p>Undergrowth, sage brush and grass.</p> <p>Heavily timbered land on 80.06 chs.</p> <p>May 23: At this cor. I set off <math>20^{\circ}29'N</math>. on the decl. arc, and at 11h. 56m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is <math>37^{\circ}56'N</math>.</p>
	<p>Knowing that closing corners will be necessary I run West, bet. secs. 19 and 30, on true line</p> <p>Descend over mountainous land through heavy timber.</p>
1.00	Hollow, 75 ft. deep, course S. Ascend.
16.00	Ridge, bears N. and SE. Descend.
23.25	Hollow, 50 ft. deep, course SE. Ascend.
26.00	Ridge, bears NE. and SW. Descend.
37.50	Hollow, 150 ft. deep, course SW. Ascend.

SUBDIVISIONS OF T.33 S.,R.19 W.

Chains

40.00

Spur, projects SW.

Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 19 on N. half, S 30 on S. half; from which

A pinon, 15 ins. diam., bears S. 25° 55' W., 16 lks. dist., marked  $\frac{1}{4}$  S 30 BT.

A pinon, 12 ins. diam., bears N. 8° 30' W., 43 lks. dist., marked  $\frac{1}{4}$  S 19 BT.

Descend.

50.25

Hollow, 200 ft. deep, course SW.

Ascend.

64.00

Spur, projects S.

Descend.

75.27

Intersect W. bdy. of Tp. 371 lks. N. of the cor. of secs. 19-24-25 and 30, heretofore described.

Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the ground for the closing cor. bet. secs. 19 and 30, marked on brass cap

T 33 S on N. half,

CC S 24 in NW.,

S 19 in NE.,

R 19 W S 30 in SE. and

R 20 W S 25 in SW. quadrant; from which

A pinon, 12 ins. diam., bears N. 26° 35' E., 25 lks. dist., marked T 33 S R 19 W S 19 BT.

A pinon, 7 ins. diam., bears S. 73° 55' E., 19 lks. dist., marked T 33 S R 19 W S 30 BT.

I destroy all markings on the cor. of secs. 19-24-25 and 30 that pertain to R. 19 W.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land on 75.27 chs.

May 23, 1911.

CHAINS	
	<p>May 24: At 7h,57m.,a.m.,l.m.t.,I set off <math>37^{\circ}56'N</math>.on the lat.arc,<math>20^{\circ}39'N</math>.on the decl.arc,and determiné a meridian with the solar at the cor.of secs.19-20-29 and 30.</p> <p>Thence I run</p> <p><math>N.0^{\circ}06'W.</math>,bet.secs.19 and 20.</p> <p>Ascend over mountainous land through heavy timber.</p>
21.50	<p>Ridge,bears E.and W.Leave heavy timber,bears NW.and SE.</p> <p>Descend.Enter scattering timber and dense undergrowth.</p>
28.50	<p>Hollow,150 ft.deep,course E.</p> <p>Ascend.</p>
40.00	<p>Set an iron post,3 ft.long,1 in.diam.,26 ins.in the ground for the <math>\frac{1}{4}</math> sec.cor.,marked on brass cap,<math>\frac{1}{4}</math> S 19 on W.half,S 20 on E.half;from which</p> <p>A pinon,8 ins.diam.,bears <math>N.78^{\circ}15'E.</math>,23 lks.dist., marked <math>\frac{1}{4}</math> S 20 BT.</p> <p>A pinon,12 ins.diam.,bears <math>S.20^{\circ}40'W.</math>,33 lks. dist.,marked <math>\frac{1}{4}</math> S 19 BT.</p> <p>May 24:Sky over cast;lat.observation impossible.</p>
50.00	<p>Ridge,bears E.and W.</p> <p>Descend.</p>
54.00	<p>Hollow,30 ft.deep,course E.</p> <p>Ascend.</p>
64.00	<p>Ridge,bears W.and SE.</p> <p>Descend.</p>
66.00	<p>Hollow,25 ft.deep,course E.</p> <p>Ascend.</p>
72.00	<p>Spur,projects E.</p> <p>Descend.</p>
79.00	<p>Hollow,100 ft.deep,course E.</p> <p>Ascend.</p>
80.00	<p>Set an iron post,3 ft.long,2 ins.diam.,24 ins.in the ground for the cor.of secs.17-18-19 and 20,marked on brass cap</p> <p>T 33 S S 18 In NW.,</p> <p>R 19 W S 17 in NE.,</p> <p>S 20 in SE.and</p> <p>S 19 in SW.quadrant;raise almond of stone 2 ft.base</p>

CHAINS

1½ ft. high, W. of cor.; no trees available.

Pits impracticable.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sagebrush and grass.

Heavily timbered land or land covered with scattering timber and dense undergrowth on 80.00 chs.

May 24, 1911.

June 3: At 7h.58m., a.m., l.m.t., I set off 37°56'N. on the lat. arc, 22°15'N. on the decl. arc, and determine a meridian with the solar at the cor. of secs. 17-18-19 and 20.

Thence I run

S. 89°58'E., on a random line, bet. secs. 17 and 20.

40.00 Set temp. ¼ sec. cor.

79.96 Intersect N. and S. line, 12 lks. S. of the cor. of secs. 16-17-20 and 21.

Thence I run

S. 89°57'W., on a true line

Bet. secs. 17 and 20.

Descend over mountainous land through heavy timber.

4.00 Hollow, 100 ft. deep, course S.

Ascend.

15.00 Spur, projects S.

Descend.

27.40 Hollow, 150 ft. deep, course SE.

Ascend.

39.98 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the ¼ sec. cor., marked on brass cap, ¼ S 17 on N. half, S 20 on S. half; from which

A pinon, 12 ins. diam., bears N. 36°10'E., 55 lks. dist., marked ¼ S 17 BT.

A pinon, 12 ins. diam., bears S. 13°25'W., 72 lks.

CHAINS	
	dist.,marked $\frac{1}{4}$ S 20 BT.
42.00	Spur,projects S. Descend.
53.75	Hollow,150 ft.deep,course SE. Along,N.slope of hollow.
73.25	Recross same hollow,course NE.Leave heavy timber bears N.and S.;ascend through scattering timber and dense undergrowth.
79.96	The cor.of secs.17-18-19 and 20. Land,mountainous. Soil,light sandy loam and gravel,4th rate,on a subsoil of clay and loose rock. Timber,cedar and pinon. Undergrowth,sage brush and grass. Heavily timbered land or land covered with scattering timber and dense undergrowth on 79.96 chs. June 3: At this cor.I.set off $22^{\circ}15'$ N.on the decl.arc, and at 11h.58m.,a.m.,l.m.t.,observe the sun on the meridian,the resulting lat.is $37^{\circ}56'$ N.
	<hr/> Knowing that closing corners will be necessary, I run West,bet.secs.18 and 19, on true line
	Ascend over mountainous land through scattering timber and dense undergrowth.
10.25	Ridge,bears NE.and SW. Descend.
40.00	Set an iron post,3 ft.long,1 in.diam.,26 ins.in the ground for the $\frac{1}{4}$ sec.cor.,marked on brass cap; $\frac{1}{4}$ S 18 on N.half,S 19 on S.half;from which A pinon,36 ins.diam.,bears S. $14^{\circ}30'$ E.,263 lks. dist.,marked $\frac{1}{4}$ S 19 BT. A pinon,10 ins.diam.,bears N. $15^{\circ}30'$ W.,263 lks. dist.,marked $\frac{1}{4}$ S 18 BT.
50.00	Hollow,200 ft.deep,course S. Ascend.
72.70	Ridge,bears NE.and SE. Descend.

## CHAINS

74.90

Intersect the W.bdy.of the Tp.375 lks.N.of the cor.of  
secs.13-18-19 and 24, heretofore described.

Set an iron post,3 ft.long,2 ins.diam.,24 ins.in the  
ground for the closing cor.bet.secs.18 and 19,marked on  
brass cap

T 33 S on N.half,

CC S 13 in NW.,

S 18 in NE.,

S 19 R 19 W in SE.and

S 24 R 20 W in SW.quadrant;from which

A pinon,8 ins.diam.,bears N.44°50'E.,198 lks,  
dist.,marked T.33 S.R.19.W.S.18 ET.

A mahogany,8 ins.diam.,bears S.39°E.,72 lks.  
dist.,marked T 33 S R 19 W S 19 ET.

I destroy all markings on the cor.of secs.13-18-19 and  
24,that pertain to R.19 W.

Land,mountainous.

Soil,light sandy loam and gravel,4th rate,on a subsoil  
of clay and loose rock.

Timber,cedar and pinon.

Undergrowth,mahogany,sage brush and grass.

Scattering timber and dense undergrowth on 74.90 chs.

June,3,1911.

June 5: At 7h.58m.,a.m.,l.m.t.,I set off 37°56'N.on the  
lat.arc,22°29'N.on the decl.arc,and determine a meridian  
with the solar at the cor.of secs.17-18-19 and 20.

Thence I run

N.0°06'W.,bet.secs.17 and 18.

Ascend over mountainous land through scattering timber  
and dense undergrowth.

5.50

Ridge,bears NE.and SW.

Descend.

11.00

Hollow,65 ft.deep,course:NE.

## CHAINS

Ascend.

30.25 Ridge, bears NE. and SW. Enter heavy timber bears NW. and SE.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 18 on W. half, S 17 on E. half; from which

A pinon, 7 ins. diam., bears S.  $74^{\circ}$  E., 19 lks. dist., marked  $\frac{1}{4}$  S 17 BT.

A pinon, 7 ins. diam., bears S.  $73^{\circ}20'$  W., 41 lks. dist., marked  $\frac{1}{4}$  S 18 BT.

June 5: At this cor. I set off  $22^{\circ}30'$  N. on the decl. arc and at 11h. 58m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is  $37^{\circ}56'$  N.

56.00 Leave heavy timber, bears NW. and SE.; enter scattering timber and dense undergrowth.

64.20 Hollow, 500 ft. deep, course NE.

Ascend abruptly.

80.00 Set an iron post, 3 ft. long, 2 ins. diam.; 24 ins. in the ground for the cor. of secs. 7-8-17 and 18, marked on brass cap

T 33 S S 7 in NW.,

R 19 W S 8 in NE.,

S 17 in SE. and

S 18 in SW. quadrant; from which

A pinon, 11 ins. diam., bears N.  $21^{\circ}$  E., 48 lks. dist., marked T 33 S R 19 W S 8 BT.

A pinon, 9 ins. diam., bears S.  $66^{\circ}$  E., 5 lks. dist., marked T 33 S R 19 W S 17 BT.

A pinon, 11 ins. diam., bears S.  $34^{\circ}40'$  W., 47 lks. dist., marked T 33 S R 19 W S 18 BT.

A pinon, 12 ins. diam., bears N.  $9^{\circ}50'$  W., 49 lks. dist., marked T 33 S R 19 W S 7 BT.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, long leaf pine, cedar and pinon.

## CHAINS

Undergrowth, mahogany, sage brush and grass.

Heavily timbered land or land covered with scattering timber and dense undergrowth on 80.00 chs.

June 5, 1911.

June 6: At 7h. 58m., a.m., l.m.t., I set off  $37^{\circ}57'N$ . on the lat. arc,  $22^{\circ}36'N$ . on the decl. arc, and determine a meridian with the solar at the cor. of secs. 7-8-17 and 18.

Thence I run

$N.89^{\circ}57'E$ , on a random line, bet. secs. 8 and 17.

40.00 Set temp.  $\frac{1}{4}$  sec. cor.

80.16 Intersect N. and S. line, 5 lks. S. of the cor. of secs. 8-9-16 and 17.

Thence I run

$S.89^{\circ}55'W$ , on a true line

Bet. secs. 8 and 17.

Ascend over mountainous land through heavy timber.

18.00 Ridge, bears NE. and SW.

Descend.

24.75 Hollow, 85 ft. deep, course NE.

Ascend.

32.00 Spur, projects NE.

Descend.

34.40 Hollow, 60 ft. deep, course NE.

Ascend.

40.08 Set an iron post, 3 ft. long, 1 in. diam. 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 8 on N. half, S 17 on S. half; from which

A pinon, 10 ins. diam., bears  $N, 64^{\circ}55'E$ , 87 lks. dist., marked  $\frac{1}{4}$  S 8 BT.

A cedar, 10 ins. diam., bears  $S.48^{\circ}E$ , 55 lks. dist., marked  $\frac{1}{4}$  S 17 BT.

52.00 Spur, projects NE.

Descend.

CHAINS

- 66.50 Hollow, 190 ft. deep, course NE.  
 Descend.
- 80.16 The cor. of secs. 7-8-17 and 18.  
 Land, mountainous.  
 Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.  
 Timber, cedar and pinon.  
 Undergrowth, sage brush and grass.  
 Heavily timbered land on 80.16 chs.  
 June 6: At this cor. I set off  $22^{\circ}37'N$ . on the decl. arc and at 11h.58m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is  $37^{\circ}57'N$ .  
 For reasons already explained, I run West, bet. secs. 7 and 18, on true line  
 Ascend over mountainous land through scattering timber and dense undergrowth.
- 8.75 Ridge, bears NW. and SE.  
 Descend.
- 23.20 Hollow, 300 ft. deep, course NE.  
 Ascend.
- 40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 7 on N. half, S 18 on S. half; from which  
     A pinon, 11 ins. diam., bears  $N.15^{\circ}50'E.$ , 56 lks. dist., marked  $\frac{1}{4}$  S 7 BT.  
     A cedar, 10 ins. diam., bears  $S.60^{\circ}05'W.$ , 24 lks. dist., marked  $\frac{1}{4}$  S 18 BT.
- June 6, 1911
- June 7 : At 7h.58m., a.m., l.m.t., I set off  $37^{\circ}57'N$ . on the lat. arc,  $22^{\circ}42'N$ . on the decl. arc, and determine a meridian with the solar at the  $\frac{1}{4}$  sec. cor. bet. secs. 7 and 18.  
 Thence I run  
 West, bet. secs. 7 and 18, with continuous measurement.
- 60.00 Ridge, bears NE. and S.  
 Descend.

CHAINS

74.55 Intersect the W.bdy.of the Tp.380 lks.N.of the cor.of secs.7-12-13 and 18, heretofore described.  
 Set an iron post,3 ft.long,2 ins.diam.,24 ins.in the ground for the closing cor.bet.secs.7 and 18,marked on brass cap  
 T 33 S on N.half,  
 S 12 CC in NW.,  
 S 7 in NE.,  
 S 18 R 19 W in SE.and.  
 S 13 R 20 W in SW.quadrant;raise a mound of stone 2 ft.base,1½ ft.high E.of cor.No trees available.  
 Pits impracticable.  
 I destroy all markings on the cor.of secs.7-12-13 and 18 that pertain to R.19 W.  
 June 7: At this cor.I set off 22°43'N.on the decl.arc, and at 11h.58m.,a.m.,1.m.t.,observe the sun on the meridian,the resulting lat.is 37°57'N.  
 Land,mountainous..  
 Soil,light sandy loam and gravel,4th rate,on a subsoil of clay and loose rock.  
 Timber,cedar and pinon.  
 Undergrowth,mahogany,cedar and pinon pine.  
 Scattering timber and dense undergrowth on 74.55 chs.

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N.0°06'W.,bet.secs.7 and 8.  
 Ascend over mountainous land through scattering timber and dense undergrowth.

10.00 Ridge,bears NE.and SW.  
 Descend.

38.75 Hollow,500 ft.deep,course NE.  
 Ascend abruptly.

40.00 Set an iron post,3 ft.long,1 in.diam.,26 ins.in the ground for the ¼ sec.cor.,marked on brass cap,¼ S 7 on W.half,S 8 on E.half;from which

CHAINS

A. pinon, 10 ins. diam., bears N.39°55'E., 28 lks.  
dist., marked  $\frac{1}{4}$  S 8 BT.

A. mahogany, 8 ins. diam., bears S.10°10'W., 44 lks.  
dist., marked  $\frac{1}{4}$  S 7 BT.

65.50 Ridge, bears E. and NW.  
Descend.

75.00 Hollow, 125 ft. deep, course NE..  
Ascend.

80.00 Set an iron post, 3 ft. long, 2 ins. diam., 24 ins. in the  
ground for the cor. of secs. 5-6-7 and 8, marked on brass  
cap

T 33 S S 6 in NW.,

R. 19 W S 5 in NE.,

S 8 in SE. and

S 7 in SW. quadrant; from which

A pinon, 6 ins. diam., bears S.0°45'E., 44 lks. dist.,  
marked T 33 S R 19 W S 8 BT.

A mahogany, 6 ins. diam., bears S.24°30'W., 60 lks.  
dist., marked T 33 S R 19 W S 7 BT.

A pinon, 9 ins. diam., bears N.29°50'W., 104 lks.  
dist., marked T 33 S R 19 W S 6 BT.

No other trees available; raise a mound of stone, 2 ft.  
base,  $1\frac{1}{2}$  ft. high W. of cor.

Pits impracticable.

Land, mountainous.

Soil, light sandy loam and gravel, 4th rate, on a subsoil  
of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, mahogany, sage brush and grass.

Scattering timber or dense undergrowth on 80.00 chs.

June 7, 1911.

June 8: At 7h.59m., a.m., 1.m.t., I set off 37°58'N. on the  
lat. arc, 22°48'N. on the decl. arc, and determine a meridian

CHAINS	
	with the solar at the cor. of secs. 5-6-7 and 8.
	Thence I run
	N. 89° 55' E., on a random line, bet. secs. 5 and 8.
40.00	Set temp. $\frac{1}{4}$ sec. cor.
80.16	Intersect N. and S. line, 7 lks. S. of the cor. of secs. 4-5-8 and 9.
	Thence I run
	S. 89° 52' W., on a true line,
	Bet. secs. 5 and 8.
	Ascend over mountainous land through heavy timber.
21.50	Spur, projects NE.
	Descend.
26.00	Leave heavy timber, bears NW. and Sp.; enter scattering timber and dense undergrowth.
28.00	Hollow, 125 ft. deep, course NE.
	Ascend.
38.00	Spur, projects S.
	Descend.
40.08	Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the $\frac{1}{4}$ sec. cor., marked on brass cap, $\frac{1}{4}$ S 5 on N. half, S 8 on S. half; from which
	A pinon, 8 ins. diam., bears N. 63° 50' E., 11 lks. dist., marked $\frac{1}{4}$ S 5 BT.
	A pinon, 8 ins. diam., bears S. 52° 25' E., 36 lks. dist., marked $\frac{1}{4}$ S 8 BT.
	June 8: At this cor. I set off 22° 49' N. on the decl. arc, and at 11h. 59m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37° 58' N.
52.40	Hollow, 60 ft. deep, course SE.
	Ascend.
63.00	Spur, projects N.
	Descend.
72.00	Hollow, 60 ft. deep, course NE.
	Ascend.
80.16	The cor. of secs. 5-6-7 and 8.
	Land, mountainous.

## CHAINS

Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.

Timber, cedar and pinon.

Undergrowth, sage brush and grass.

Heavily timbered land or land covered with scattering timber and dense undergrowth on 80.16 chs.

June 8, 1911.

June 9: At 7h.59m., a.m., l.m.t., I set off  $37^{\circ}58'N$ . on the lat. arc,  $22^{\circ}54'N$ . on the decl. arc, and determine a meridian with the solar at the cor. of secs. 5-6-7 and 8.

Thence I run, for reasons already explained

West, bet. secs. 6 and 7, on true line

Ascend over mountainous land through scattering timber and dense undergrowth.

6.50 Ridge, bears N. and S.

Descend.

16.00 Hollow, 200 ft. deep, course SW.

Ascend.

37.00 Ridge, bears NE. and SW.

Descend.

40.00 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 6 on N. half, S 7 on S. half; from which

A pinon, 30 ins. diam., bears  $S.18^{\circ}25'W.$ , 190 lks. dist., marked  $\frac{1}{4}$  S 7 BT.

No other trees available; raise a mound of stone, 2 ft. base,  $1\frac{1}{2}$  ft. high, N. of cor.

Pits impracticable.

June 9: At this cor I set off  $22^{\circ}54'N$ . on the decl. arc, and at 1h.59m., a.m., l.m.t., observe the sun on the meridian, the resulting lat. is  $37^{\circ}58'N$ .

44.50 Hollow, 125 ft. deep, course NW.

Ascend.

## CHAINS

45.45 Wagon road,bears NW.and SE.

52.00 Ridge,bears N.and S.

Descend.

57.00 Hollow,50 ft.deep,course NE.

Ascend.

68.00 Spur,projects NE.

Descend.

74.49 Intersect the W.bdy.of the Tp.362 lks.N.of the cor.of  
secs.1-6-7 and 12, heretofore described.

Set an iron post,3 ft.long,2 ins.diam.24 ins.in the  
ground for the closing cor.bet.secs.6 and 7,marked on  
brass cap

T 33 S on N.half,

CC S 1 in NW.,

S 6 in NE.,

S 7 R 19 W in SE.and

S 12 R 20 W in SW.quadrant;from which

A pinon,30 ins.diam.,bears N.77°25'E.,5 lks.

dist.,marked T 33 S R 19 W S 6 BT.

A pinon,14 ins.diam.,bears S.28°20'E.,107 lks.

dist.,marked T 33 S R 19 W S 7 BT.

I destroy all markings on the cor.of secs.1-6-7 and  
12,that pertain to R.19 W.

Land,mountainous.

Soil,light sandy loam and gravel,4th rate,on a subsoil  
of clay and loose rock..

Timber,cedar and pinon..

Undergrowth,mahogany,sage brush and grass.

Scattering timber and dense undergrowth on 74.49 chs.

June 9,1911.

June 10: At 7h.59m.,a.m.,l.m.t.,I set off 37°58'N.on the  
lat.arc,22°59'N.on the decl.arc,and determine a meridian  
with the solar at the cor.of secs.5-6-7 and 8.

CHAINS

Thence I run  
 N.0°06'W., on a random line, bet. secs. 5 and 6.  
 40.00 Set temp.  $\frac{1}{4}$  sec. cor.  
 81.48 Intersect N. bdy. of Tp. 21 lks. E. of the cor. of secs. 5-6-31 and 32, heretofore described.  
 Thence I run  
 S.0°11'E., on a true line  
 Bet. secs. 5 and 6.  
 Descend over mountainous land through scattering timber and dense undergrowth.  
 41.48 Set an iron post, 3 ft. long, 1 in. diam., 26 ins. in the ground for the  $\frac{1}{4}$  sec. cor., marked on brass cap,  $\frac{1}{4}$  S 6 on W. half, S 5 on E. half; raise a mound of stone, 2 ft. base, 1 $\frac{1}{2}$  ft. high W. of cor.; no trees within limits.  
 Pits impracticable.  
 June 10: At this cor., I set off 22°59' N. of the decl. arc, and at 11h. 59m., a.m., 1.m.t., observe the sun on the meridian, the resulting lat. is 37°58' N.  
 54.00 Hollow, 50 ft. deep, course NE.  
 Ascend.  
 59.00 Ridge, bears E. and W.  
 Descend.  
 81.48 The cor. of secs. 5-6-7 and 8.  
 Land, mountainous.  
 Soil, light sandy loam and gravel, 4th rate, on a subsoil of clay and loose rock.  
 Timber, cedar and pinon.  
 Undergrowth, sage brush and grass, and mahogany.  
 Scattering timber and dense undergrowth on 81.48 chs.

June 10, 1911.

GENERAL DESCRIPTION OF T.33 S.,R.19 W.

The surface of this township is generally rolling hills

## GENERAL DESCRIPTION OF T.33 S.,R.19 W.

and rough mountainous land,except a portion of secs.1-2-3 and 4 which extends into the valley,the soil of which is a rich sandy loam and gravel,12 to 18 ins.deep,on a subsoil of damp stiff clay and gravel,and is capable of producing crops with irrigation.

The soil of the balance is generally sandy loam and loose rock,with a subsoil of clay and loose rock and is unfit for any purpose except grazing.

The only water found is in secs.9 and 30,but does not flow for any distance.

The township is generally covered with a dense and scattering growth of cedars and pinon pine,with dense mahogany brush through the western portion.

The road from State Line to Modena crosses this township. There are no settlers nor any improved land in the township.

There are no indications of coal,oil or mineral found in the township.

*Ralph Gentry*

U.S.Transitman.

For table of latitude and departures see boundaries of T 33 S.,R.19 W.

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FINAL OATH OF UNITED STATES SURVEYOR.

I, \_\_\_\_\_, U. S. Surveyor, do solemnly swear that, in pursuance of special instructions received from the U. S. Surveyor General for \_\_\_\_\_ bearing date of the \_\_\_\_\_ day of \_\_\_\_\_, 191 \_\_\_\_\_, I have well, faithfully, and truly, in my own proper person, and in strict conformity with said instructions, the Manual of Surveying Instructions, and the laws of the United States, surveyed all those parts or portions of \_\_\_\_\_

For final oath of transitman see book "X" T. 31 S., R. 20 W.

\_\_\_\_\_ of the \_\_\_\_\_ Meridian, in the State of \_\_\_\_\_, which are represented in the foregoing field notes as having been executed by me, and under my direction; and I do further solemnly swear that all the corners of said survey have been established and perpetuated in strict accordance with the Manual of Surveying Instructions, and the special written instructions of the U. S. Surveyor General for \_\_\_\_\_ and in the specific manner described in the field notes, and that the foregoing are the original field notes of such survey.

U. S. Surveyor.

Subscribed by said \_\_\_\_\_, and sworn to before me }  
this \_\_\_\_\_ day of \_\_\_\_\_, 191 \_\_\_\_\_ }



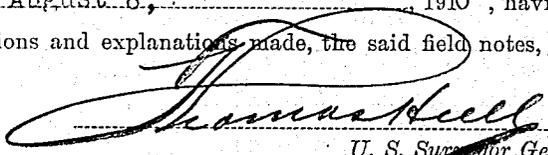
APPROVAL.

OFFICE OF THE UNITED STATES SURVEYOR GENERAL,

Salt Lake City, Utah, Feb. 26 \_\_\_\_\_, 191 4.

The foregoing field notes of the survey of the subdivisinal lines of Township No. 33 South, Range No. 19 West of the Salt Lake Base and Meridian, Utah,

executed by \_\_\_\_\_ Ralph Gentry \_\_\_\_\_ under his special instructions dated \_\_\_\_\_ August 6, \_\_\_\_\_ 1910 \_\_\_\_\_, having been critically examined, and the necessary corrections and explanations made, the said field notes, and the surveys they describe, are hereby approved.

  
U. S. Surveyor General.

I certify that the foregoing transcript of the field notes of the above-described surveys in \_\_\_\_\_, has been correctly copied from the original notes on file in this office.